WEST VALLEY CITY
Unity Pride Progress

The Regular Meeting of the West Valley City Council will be held on Tuesday, January 26, 2016, at 6:30 PM, in the City Council Chambers, West Valley City Hall, 3600 Constitution Boulevard, West Valley City, Utah. Members of the press and public are invited to attend.

Posted January 21, 2016 at 3:00 PM

A G E N D A

1. Call to Order

2. Roll Call

3. Opening Ceremony: Councilmember Tom Huynh

4. Special Recognitions

5. Approval of Minutes:
   A. January 12, 2016

6. Comment Period:

(The comment period is limited to 30 minutes. Any person wishing to comment shall limit their comments to five minutes. Any person wishing to comment during the comment period shall request recognition by the Mayor. Upon recognition, the citizen shall approach the microphone. All comments shall be directed to the Mayor. No person addressing the City Council during the comment period shall be allowed to comment more than once during that comment period. Speakers should not expect any debate with the Mayor, City Council or City Staff; however, the Mayor, City Council or City Staff may respond within the 30-minute period.)

   A. Public Comments

West Valley City does not discriminate on the basis of race, color, national origin, gender, religion, age or disability in employment or the provision of services.

If you are planning to attend this public meeting and, due to a disability, need assistance in understanding or participating in the meeting, please notify the City eight or more hours in advance of the meeting and we will try to provide whatever assistance may be required. The person to contact for assistance is Nichole Camac.

B. City Manager Comments

C. City Council Comments

7. Ordinances:
   A. 16-04: Amend Sections 18-5-101, 18-5-102, and 20-7-107 of the West Valley City Municipal Code to Bring the Storm Water Ordinance into Compliance with Current Engineering Standards

8. Resolutions:
   A. 16-11: Authorize the Execution of the Adoption of Public Works Engineering Standards

   B. 16-12: Authorize the Execution of an Agreement Between West Valley City and Ensign Development, Inc. to Reimburse Ensign Development for Certain Stormwater Facilities Expenses

9. Consent Agenda:
   A. Reso. 16-13: Authorize the Acceptance of a Storm Drain Easement from Eric D. Bishop, Inc., Adams Bay Lighthouse Investment, LLC, and the Eric D. Bishop, Inc. Pension and Profit Sharing Trust ("Grantors") In Favor of West Valley City Across Properties Owned by the Amended and Restated Mildred L. Defa Family Trust (14-34-276-045) and Spangler Family Trust (14-34-276-044) Located at 3730 South and 3764 South 6400 West

   B. Reso. 16-14: Authorize the City to Enter Into A Right-Of-Way Contract with Cline Mills and Rena G. Mills, Trustees of the Mills Family Trust (Grantors) and to Accept a Temporary Construction Easement for Property Located at 3904 West and 4100 South (15-32-354-022)

   C. Reso. 16-15: Authorize the City to Enter Into a Right-Of-Way Contract with Neil R. Lund and Susan H. Lund, and to Accept a Warranty Deed and a Temporary Construction Easement for Property Located at 4094 South Constitution Boulevard (15-33-380-013)

10. Motion for Executive Session

11. Adjourn

THE WEST VALLEY CITY COUNCIL MET IN REGULAR SESSION ON TUESDAY, JANUARY 12, 2016, AT 6:30 P.M. IN THE COUNCIL CHAMBERS, WEST VALLEY CITY HALL, 3600 CONSTITUTION BOULEVARD, WEST VALLEY CITY, UTAH. THE MEETING WAS CALLED TO ORDER AND CONDUCTED BY MAYOR BIGELOW.

THE FOLLOWING MEMBERS WERE PRESENT:

Ron Bigelow, Mayor
Don Christensen, Councilmember At-Large
Lars Nordfelt, Councilmember At-Large
Tom Huynh, Councilmember District 1
Steve Buhler, Councilmember District 2
Karen Lang, Councilmember District 3
Steve Vincent, Councilmember District 4

STAFF PRESENT:

Wayne Pyle, City Manager
Nichole Camac, City Recorder

Paul Isaac, Assistant City Manager/HR Director
Eric Bunderson, City Attorney
Jim Welch, Finance Director
John Evans, Fire Chief
Layne Morris, CPD Director
Russell Willardson, Public Works Director
Kevin Astill, Parks and Recreation Director
Sam Johnson, Strategic Communications Director
Steve Sandquist, Police Department
Jake Arslanian, Public Works Department
Steve Lehman, CED Department

____ **OPENING CEREMONY**
The Opening Ceremony was conducted by Lars Nordfelt who asked members of the City Council, City staff, and the audience to rise and recite the Pledge of Allegiance.

____ **SPECIAL RECOGNITIONS**
Mayor Bigelow recognized Senator Karen Mayne who was in attendance at the meeting.

____ **APPROVAL OF MINUTES OF REGULAR MEETING HELD DECEMBER 15, 2015**

The Council read and considered Minutes of the Regular Meeting held December 15, 2015. There were no changes, corrections or deletions.

Councilmember Vincent moved to approve the Minutes of the Regular Meeting held December 15, 2015. Councilmember Huynh seconded the motion.

A voice vote was taken and all members voted in favor of the motion.

____ **COMMENT PERIOD**

Upon inquiry by Mayor Bigelow the following individual addressed the City Council during the comment period:

Senator Karen Mayne addressed the City Council and advised she had visited the County and Salt Lake City and was also meeting with other Councils in the Salt Lake Valley. She stated she wanted to encourage UTA (Utah Transportation Authority) to provide increased bus transit in residential areas. She provided a letter dated January 5, 2016, to the City Council and expressed desire that West Valley City, as the second largest City in the State, would support her proposal to improve bus service in neighborhoods by retooling and re-examining of neighborhood routes and bus stops.

____ **PUBLIC HEARING, ACCEPT PUBLIC INPUT REGARDING APPLICATION NO. S-26-2015, FILED BY ADAM MAHER REQUESTING APPROVAL TO AMEND LOT 1B OF THE CABCO 5600 WEST SUBDIVISION AMENDED LOCATED AT 2514 SOUTH 5600 WEST**

Mayor Bigelow informed a public hearing had been advertised for the Regular Council Meeting scheduled January 12, 2016, in order for the City Council to hear and consider public comments regarding Application No. S-26-2015 filed by Adam Mahler requesting approval to amend Lot 1B of the CABCO 5600 West Subdivision Amended located at 2514 South 5600 West.

Mayor Bigelow presented proposed Ordinance No. 16-01 related to the proposal to be considered by the City Council subsequent to the public hearing. The City Council had previously received written information as follows:

The subject subdivision had been recorded with the Salt Lake County Recorder's Office in November 2015.

The subdivision was located immediately to the north of the Riter Canal and west of 5600 West.

The proposed plat amendment had been requested in order to establish a condominium for each of the four proposed buildings within the subdivision. The previously recorded

plat separated Lot 1B from the other property within the subdivision allowing the condominium development to take place.

Commercial and Industrial condominiums were not uncommon. According to Mr. Maher there were a variety of benefits associated with doing a commercial condominium project. For the property owner it was primarily the ability to sell units as opposed to leasing them. For business owners it was the ability to predict occupancy costs without having to renegotiate their lease every few years. There was also a sense of pride in ownership that could help keep the entire project viable because of the interest each owner had in wanting the overall project to succeed. For these reasons, Mr. Maher would like to amend the subdivision plat.

Dedication of 5600 West and Anna Caroline Drive had been done as part of the original subdivision application. All conditions related to the original plat were still in effect with this application.

Mayor Bigelow opened the public hearing. There being no one to speak in favor or in opposition, Mayor Bigelow closed the public hearing.

ACTION: ORDINANCE NO. 16-01, AMEND LOT 1B IN THE CABCO 5600 WEST SUBDIVISION AMENDED LOCATED IN WEST VALLEY CITY
The City Council previously held a public hearing regarding Application No. S-26-2015 filed by Adam Maher, and proposed Ordinance No. 16-01 that would amend Lot 1B in the CABCO 5600 West Subdivision Amended located in West Valley City.

Upon inquiry by Mayor Bigelow there were no further questions from members of the City Council, and he called for a motion.

Councilmember Vincent moved to approve Application No. S-26-2015 filed by Adam Maher and Ordinance No. 16-01, an Ordinance Approving the Amendment of Lot 1B in the CABCO 5600 West Subdivision Amended, Located In West Valley City, Utah. Councilmember Christensen seconded the motion.

A roll call vote was taken:

Mr. Vincent	Yes
Ms. Lang	Yes
Mr. Buhler	Yes
Mr. Huynh	Yes
Mr. Christensen	Yes
Mr. Nordfelt	Yes
Mayor Bigelow	Yes

Unanimous.

____ **PUBLIC HEARING, ACCEPT PUBLIC INPUT REGARDING APPLICATION NO. S-28-2015 FILED BY JUSTIN PETERSON REQUESTING APPROVAL TO AMEND LOT 1 OF THE WEST VALLEY COMMERCIAL RETAIL SUBDIVISION LOCATED AT APPROXIMATELY 6200 SOUTH 5600 WEST**

Mayor Bigelow informed a public hearing had been advertised for the Regular Council Meeting scheduled January 12, 2015, in order for the City Council to hear and consider public comments regarding Application No. S-28-2015 filed by Justin Peterson requesting approval to amend Lot 1 of the West Valley Commercial Retail Subdivision located at approximately 6200 South 5600 West.

Mayor Bigelow presented proposed Ordinance No. 16-02 related to the proposal to be considered by the City Council subsequent to the public hearing. The City Council had previously received written information as follows:

Justin Peterson, representing Walmart, had requested to amend Lot 1 of the West Valley Commercial Retail Center Subdivision. The purpose for the amended lot was to create an additional building lot within what was part of Lot 1. The subject property was located at the corner of 6200 South and 5600 West and zoned C-2.

The subject subdivision had been recorded with the Salt Lake County Recorder's Office in August of 2003, with the original subdivision consisting of 5 lots. The newly created lot would be located in the northeast corner of Lot 1 and just to the south of an existing retail building on Lot 4.

Access to the subject lot would be gained from both 6200 South and 5600 West. The original subdivision contained various easements for water/sewer, parking and access. While these easements were still applicable for the amended plat, the applicant had proposed to create new access easements from both 6200 South and 5600 West that had not been defined on the original subdivision plat.

Parking spaces being eliminated to make way for the new lot would not negatively impact the overall parking requirements for the shopping center. There were approximately 965 existing parking stalls where 730 were required.

Mayor Bigelow opened the public hearing. There being no one to speak in favor or in opposition, Mayor Bigelow closed the public hearing.

ACTION: ORDINANCE NO. 16-02, AMEND LOT 1 IN THE WEST VALLEY COMMERCIAL RETAIL SUBDIVISION LOCATED IN WEST VALLEY CITY

The City Council previously held a public hearing regarding Application No. S-28.2015 filed by Justin Peterson, and proposed Ordinance No. 16-02 that would amend Lot 1 in

the West Valley Commercial Retail Subdivision located at approximately 6200 South 5600 West in West Valley City.

Upon inquiry by Mayor Bigelow there were no further questions from members of the City Council, and he called for a motion.

Councilmember Lang moved to approve Application No. S-28-2015 filed by Justin Peterson and Ordinance No. 16-02, an Ordinance approving the Amendment of Lot 1 in the West Valley Commercial Retail Subdivision. Councilmember Nordfelt seconded the motion.

A roll call vote was taken:

Mr. Vincent	Yes
Ms. Lang	Yes
Mr. Buhler	Yes
Mr. Huynh	Yes
Mr. Christensen	Yes
Mr. Nordfelt	Yes
Mayor Bigelow	Yes

Unanimous.

____ **RESOLUTION NO. 16-01, AUTHORIZE THE EXECUTION OF AN AGREEMENT BETWEEN WEST VALLEY CITY AND AARON PRICE TO PROVIDE ADMINISTRATIVE LAW JUDGE SERVICES TO WEST VALLEY CITY**

Mayor Bigelow presented proposed Resolution No. 16-01 that would authorize the execution of an Administrative Law Judge Service Agreement between West Valley City and Aaron Price in the amount of $45.00 per hour, to provide administrative law judge services to West Valley City.

Written information previously provided to the City Council included the following:

The proposed contract would award a non-exclusive one-year term to Aaron Price to be an Administrative Law Judge (AL) for West Valley City. The contract set forth the duties to include all ACE hearings, parking tickets and other matters as assigned by the City Administration. The contract would allow the City to dismiss Mr. Price for cause and either side to rescind the contract with 30 days written notice. The rate of pay would be in the amount of $45.00 per hour and the agreement did not guarantee a minimum number of hours or any exclusivity.

Upon inquiry by Mayor Bigelow there were no further questions from members of the City Council, and he called for a motion.

Councilmember Buhler moved to approve Resolution No. 16-01, a Resolution Authorizing the Execution of an Agreement Between West Valley City and Aaron Price to Provide Administrative Law Judge Services to West Valley City. Councilmember Huynh seconded the motion.

A roll call vote was taken:

Mr. Vincent	Yes
Ms. Lang	Yes
Mr. Buhler	Yes
Mr. Huynh	Yes
Mr. Christensen	Yes
Mr. Nordfelt	Yes
Mayor Bigelow	Yes

Unanimous.

____ **RESOLUTION NO. 16-02, APPROVING THE PURCHASE OF FIVE VEHICLES FROM KEN GARFF FORD**

Mayor Bigelow presented proposed Resolution No. 16-02 that would approve the purchase of five vehicles from Ken Garff Ford in an amount not to exceed $123,610.40.

Written information previously provided to the City Council included the following:

Ken Garff Ford held the State Contract to supply Ford Police Interceptor Sedans.

Vehicles being replaced were as follows:

ICN	Mileage	Year	Make	Model
711309	101,000	2008	Ford	Crown Vic
711323	102941	2009	Ford	Crown Vic
711344	106395	2009	Ford	Crown Vic
711346	102791	2010	Ford	Crown Vic
711347	101726	2010	Ford	Crown Vic

Two of the Interceptor Sedans were being purchased in place of an Interceptor SUV and Ford Transit Van previously approved for purchase. The others were being funded with insurance funds recovered from other at-fault parties.

Upon inquiry by Mayor Bigelow there were no further questions from members of the City Council, and he called for motion.

Councilmember Lang moved to approve Resolution No. 16-02, a Resolution Approving the Purchase of Five Vehicles from Ken Garff Ford. Councilmember Vincent seconded the motion.

A roll call vote was taken:

Mr. Vincent	Yes
Ms. Lang	Yes
Mr. Buhler	Yes
Mr. Huynh	Yes
Mr. Christensen	Yes
Mr. Nordfelt	Yes
Mayor Bigelow	Yes

Unanimous.

RESOLUTION NO. 16-03, APPROVING AN INTERLOCAL COOPERATION AGREEMENT BETWEEN WEST VALLEY CITY AND SALT LAKE COUNTY TO SHARE THE COSTS OF CERTAIN ROAD CONSTRUCTION AND CAPITAL IMPROVEMENT PROJECTS

Mayor Bigelow presented proposed Resolution No. 16-03 that would approve an Interlocal Cooperation Agreement between West Valley City and Salt Lake County in the amount of $10,000.00, to share the costs of certain road construction and capital improvement projects.

Written information previously provided the City Council included the following:

Through the proposed agreement, Salt Lake County would pledge $10,000,000 to West Valley City to pay for construction or reconstruction of highway or maintenance projects and capital improvements related to the enforcement of State motor vehicle and traffic laws.

The 2013 State Legislature had appropriated funds from the County of the First Class State Highway Projects Fund to the legislative body of Salt Lake County to be used for regional development of road construction and capital improvement projects. Salt Lake County desired to transfer $10,000,000 to West Valley City for various transportation-related capital improvement projects. As these projects were designed, bid and prepared for construction, the use of the funds would be more specifically delineated.

Upon inquiry by Mayor Bigelow there were no further questions from members of the City Council, and he called for a motion.

Councilmember Huynh moved to approve Resolution No. 16-03, a Resolution Approving an Interlocal Cooperation Agreement Between West Valley City and Salt Lake County to Share the Costs of Certain Road Construction and Capital Improvement Projects. Councilmember Christensen seconded the motion.

A roll call vote was taken:

Mr. Vincent	Yes
Ms. Lang	Yes
Mr. Buhler	Yes
Mr. Huynh	Yes
Mr. Christensen	Yes
Mr. Nordfelt	Yes
Mayor Bigelow	Yes

Unanimous.

____ **APPLICATION NO. S-27-2015 FILED BY COLBY ANDERSON REQUESTING FINAL PLAT APPROVAL FOR THE REDWOOD BUSINESS CENTER SUBDIVISION LOCATED AT 2850 SOUTH REDWOOD ROAD**

Mayor Bigelow presented Application No. S-27-2015 filed by Colby Anderson requesting final plat approval for the Redwood Business Center Subdivision located at 2850 South Redwood Road.

Written information previously provided the City Council included the following:

Colby Anderson, representing Redwood Broadbent SLC, LLC, had requested final plat approval for the Redwood Business Center Subdivision. The subject property was located at 2850 South Redwood Road and presently occupied with three existing buildings. The subdivision would be bordered on the north by Community Nursing Services, the south by vacant land, and the west by the Lake Point Office Complex.

The subdivision would consist of three lots on just under five acres. The required lot area in the C-3 zone was one acre. Building coverage could not exceed 75% of the lot area. For the proposed subdivision, Lot 1 would comprise 1.3 acres with the existing building covering approximately 33%. Lots 2 and 3 were approximately 1.7 acres in size with each existing building covering approximately 43%. The subdivision would allow the landowner to sell each building independent of each other, which was the ultimate objective of the subject application.

Access to the subdivision would be gained from Redwood Road. There were two existing access points at the north and south ends of the property. The subdivision would require a cross access easement over Lot 1 in favor of Lots 2 and 3 along with cross parking easements. The existing buildings were used for office, business and retail purposes. Landscaping was installed along the front and sides of the project and was in good condition.

Upon inquiry by Mayor Bigelow there were no further questions from members of the City Council, and he called for a motion.

Councilmember Christensen moved to approve Application No. S-27-2015 filed by Colby Anderson, representing Redwood Broadbent SLC, LLC, and give final plat approval for Redwood Business Center Subdivision, located at 2850 South Redwood Road. Councilmember Buhler seconded the motion.

A roll call vote was taken:

Mr. Vincent	Yes
Ms. Lang	Yes
Mr. Buhler	Yes
Mr. Huynh	Yes
Mr. Christensen	Yes
Mr. Nordfelt	Yes
Mayor Bigelow	Yes

Unanimous.

____ **CONSENT AGENDA**

A. **RESOLUTION NO. 16-04, AUTHORIZING THE CITY TO ENTER INTO A RIGHT-OF-WAY CONTRACT WITH ANAYA'S MARKET, LIMITED LIABILITY COMPANY, AND TO ACCEPT A WARRANTY DEED AND A TEMPORARY CONSTRUCTION EASEMENT FOR PROPERTY LOCATED AT 4122 SOUTH AND 4000 WEST (21-06-229-007)**

Mayor Bigelow presented proposed Resolution No. 16-04 that would authorize the City to enter into a Right-of-Way Contract with Anaya's Market, Limited Liability Company, and to accept a Warranty Deed and a Temporary Construction Easement for property located at 4122 South and 4000 West (21-06-229-007).

Written information previously provided to the City Council included the following:

The Anaya's Market parcel was one of the properties affected by the 4100 South:

4000 West, 2700 West, and 1300 West Signal Improvements Project. The project included widening intersection and improving signals on 4100 South at 4000 West, 2700 West, and 1300 West. Acquisition from Anaya's Market included 445 square feet of right-of-way. Compensation for the deed, easement and improvements would be in the amount of $18,400.00 based on an appraisal report prepared by the DH Group, LLC.

The project would be funded under the Highway Safety Improvement Program (HSIP) with federal funds. Under a previously executed federal aid agreement, West Valley City would be responsible for 6.77% of all project costs, including right-of-way. With the total value of the acquisition and easement for this acquisition being $24,800.00, the City's share of the easements would be in the amount of $1,678.96.

B. **RESOLUTION NO. 16-05, AUTHORIZING THE CITY TO ACCEPT A WARRANTY DEED FROM CHUN S. HSIANG AND HONG XIAO FOR PROPERTY LOCATED AT 4758 WEST 4100 SOUTH (PARCEL NO. 15-31-354-014)**

Mayor Bigelow presented proposed Resolution No. 16-05 that would authorize the City to accept a Warranty Deed from Chun S. Hsiang and Hong Xiao for property located at 4758 West 4100 South (Parcel No. 15-31-354-014).

Written information previously provided to the City Council included the following:

Chun S. Hsiang and Hong J. Xiao had signed a Warranty Deed for right-of-way at the northeast corner of the intersection of 4800 West and 4100 South. Chun S. Hsiang and Hong J. Xiao were owners of the property for the proposed Wild General restaurant and office building site. As a condition of approval for the proposed project, conveyance of right-of-way had been required to match existing street improvements at the southwest corner of the property.

C. **RESOLUTION NO. 16-06, RATIFYING THE CITY MANAGER'S APPOINTMENT OF JOHNNY HAYES AS A MEMBER OF THE WEST VALLEY CITY ARTS COUNCIL**

Mayor Bigelow presented proposed Resolution No. 16-06 that would ratify the City Manager's appointment of Johnny Hayes as a member of the West Valley City Arts Council.

Written information previously provided to the City Council included the following:

Johnny Hayes had expressed willingness to serve as a member of the West Valley

City Arts Council and would fill the unexpired term of Katherine St. John. Members of the Arts Council were appointed for a two-year term by the City Manager with the advice and consent of the City Council.

D. **RESOLUTION NO. 16-07, RATIFYING THE CITY MANAGER'S APPOINTMENT OF MARTELL WINTERS TO THE WEST VALLEY CITY PLANNING COMMISSION FOR A TERM FROM JANUARY 12, 2016 TO JULY 1, 2018**

Mayor Bigelow presented proposed Resolution No. 16-07 that would ratify the City Manager's appointment of Martell Winters to the West Valley City Planning Commission for a term from January 12, 2016 to July 1, 2018.

Written information previously provided to the City Council included the following:

The Planning Commission is comprised of seven members and one alternate member appointed and reappointed by the City Manager with the advice and consent to the City Council.

Martell Winters had been recommended for appointment to the Commission, having served as an alternate member since February 2015. Mr. Winters would fill the position previously held by Barbara Thomas who resigned in December of 2015. Ms. Thomas' term would have expired on July 1, 2018 therefore Mr. Winters' term would run from January 12, 2016 to July 1, 2018.

Mr. Winters had been a resident of the City for 20 years and currently worked as a senior scientist for Nelson Laboratories. It was believed he would be a valuable asset to the City in serving on the Planning Commission.

E. **RESOLUTION NO. 16-08, RATIFYING THE CITY MANAGER'S APPOINTMENT OF DAVID MC EWEN TO THE WEST VALLEY CITY PLANNING COMMISSION FOR A TERM FROM JANUARY 12, 2016 TO JULY 1, 2017**

Mayor Bigelow presented proposed Resolution No. 16-08 that would ratify the City Manager's appointment of David Mc Ewen to the West Valley City Planning Commission for a term from January 12, 2016 to July 1, 2017.

Written information previously provided to the City Council included the following:

The Planning Commission had seven members and one alternate member appointed and reappointed by the City Manager with the advice and consent of the City Council.

David McEwen, currently serving as an alternate member, had been recommended as a regular member of the Planning Commission. He was being recommended for appointment as the alternate member to take Martell Winters' place. Mr. McEwen's term would run from January 12, 2016 to July 1, 2017.

Mr. McEwen had worked at RC Willey and Intermountain Healthcare and was currently an at-home father. It was believed he would be a valuable asset to the City in serving on the Planning Commission.

Upon inquiry by Mayor Bigelow there were no further questions from members of the City Council, and he called for a motion.

Councilmember Vincent moved to approve Resolution Nos. 16-04, 16-05, 16-06, 16-07 and 16-08 as presented on the Consent Agenda. Councilmember Nordfelt seconded the motion.

A roll call vote was taken:

Mr. Vincent	Yes
Ms. Lang	Yes
Mr. Buhler	Yes
Mr. Huynh	Yes
Mr. Christensen	Yes
Mr. Nordfelt	Yes
Mayor Bigelow	Yes

Unanimous.

MOTION TO ADJOURN
Upon motion by Councilmember Nordfelt all voted in favor to adjourn.

THERE BEING NO FURTHER BUSINESS OF THE WEST VALLEY COUNCIL THE REGULAR MEETING OF TUESDAY, JANUARY 12, 2016, WAS ADJOURNED AT 6:51 P.M. BY MAYOR BIGELOW.

I hereby certify the foregoing to be a true, accurate and complete record of the proceedings of the Regular Meeting of the West Valley City Council held Tuesday, January 12, 2016.

_____
Nichole Camac
City Recorder

Item: _____
Fiscal Impact: n/a
Funding Source: _____
Account #: _____

Budget Opening Required: No

ISSUE:

Amend sections 18-5-101, 18-5-102, and 20-7-107 in city code relating to the adoption of the Engineering Standards.

SYNOPSIS:

Modify certain sections of city code to enable adoption of the Engineering Standards.

BACKGROUND:

The Public Works Department Engineering Standards are being adopted by the City Council. The adoption of the standards requires the modification of certain sections of city code.

Section 18-5-101 is being modified to require all development and re-development projects to perform a Drainage Analysis per the Engineering Division Standards.

Section 18-5-108 is being modified to refer developers to the Engineering Standards to determine the maximum allowable storm water discharge rate on their project. Developments have historically been required to store storm water onsite and release it to the city system at a controlled rate that has been specified by the Engineering Division. This change to the ordinance directs developers to the standards where the rate is shown on a map.

Section 20-7-107 is being modified to provide a financial incentive to developers that implements specific Low Impact Development (LID) techniques to a certain standard on their site. LID employs principles such as preserving and recreating natural landscape features, minimizing effective imperviousness to create functional and appealing site drainage that treat storm water as a resource rather than a waste product. The city is required by its state storm water permit to encourage the use of LID techniques. This ordinance change would make an a development eligible for the reduced Storm Water Utility Rate B if the first 0.38 inches of rain runoff are stored permanently on-site and allowed to infiltrate, evaporate or evapotranspire.

RECOMMENDATION:

Approve changing sections 18-5-101, 18-5-102, and 20-7-107 of city code relating to the adoption of Engineering Standards.

SUBMITTED BY:

Daniel Johnson, City Engineer

WEST VALLEY CITY, UTAH

ORDINANCE NO._____

Draft Date: 01/07/2016

Date Adopted: _____

Date Effective: _____

AN ORDINANCE AMENDING SECTIONS 18-5-101, 18-5-102, AND 20-7-107 OF THE WEST VALLEY CITY MUNICIPAL CODE TO BRING THE STORM WATER ORDINANCE INTO COMPLIANCE WITH CURRENT ENGINEERING STANDARDS.

WHEREAS, West Valley City recently adopted Engineering Standards; and

WHEREAS, modifications to the City Code are necessary to conform to certain sections of the Engineering Standards; and

WHEREAS, the City Council of West Valley City, Utah, does hereby determine that it is in the best interests of the health, safety, and welfare of the citizens of West Valley City to amend Sections 18-5-101, 18-5-102 and 20-7-107 of the West Valley City Municipal Code;

NOW, THEREFORE, BE IT ORDAINED by the City Council of West Valley City, Utah, as follows:

Section 1. Repealer. Any provision of the West Valley City Municipal Code found to be in conflict with this Ordinance is hereby repealed.

Section 2. Amendment. Sections 18-5-101, 18-5-102 and 20-7-107 are hereby amended to read as follows:

18-5-101. CONTROL OF SURFACE WATERS; STORM DRAINAGE FACILITIES.

(1) The provisions of the Storm Water Management Permit may include, as determined to be appropriate by the Division, the restrictions or requirements set forth in this Chapter with respect to collection and drainage of surface waters and the construction, use and maintenance of Storm Water Drainage Systems.

(2) All new development and redevelopment projects must perform a drainage analysis per the requirements in the Engineering Division Standards.

18-5-102. CONTROL OF EXCESS WATERS.

As determined to be necessary by the Division, any Person developing real property within the City may be required to provide, at the Person's own expense:

(1) The means, structures and systems necessary to provide for the Detention of Storm Waters on the property, or for the entire Development;

(2) The Private Drainage System Facility needed to control Storm Water runoff on the property and discharge it into an approved Drainage System facility;

(3) The Unit Drainage System Facilities required to control Storm Water runoff from any property to be dedicated to the City within the Development;

(4) The Intermediate Drainage System required to convey Storm Waters to the Major Drainage System; and/or

(5) Any portion of the Major Drainage System needed to safely convey Storm Water runoff from the property, which portion of the System may be located within or adjacent to the property. Persons who construct Major Drainage System improvements may be entitled to a Storm Drain impact fee offset or reimbursement for the cost of constructing certain portions of the Major Drainage System, in accordance with the provisions of Title 8 of this Code.

(6) Allowable storm water discharge rates are as shown in the Engineering Standards.

20-7-107. SYSTEM OF RATES AND CHARGES.

(1) Service fees imposed. Except as provided below, the City will impose storm sewer drainage fee rates and charges on each parcel of real property within the City except governmentally-owned streets and storm water facilities operated and maintained by, or for the Storm Water Utility, the county or the State of Utah.

(2) Use of funds collected. The charges shall fund the administration, planning, design, construction, operation, maintenance, and repair of existing and future storm water facilities. Storm Water Utility fees shall also fund water quality improvement programs required by West Valley City's Utah Pollutant Discharge Elimination System (UPDES) Phase 1 Municipal Storm Water Co-Permit, including: public education and outreach programs, illicit discharge detection and elimination programs, construction site storm water management, post-construction storm water management, and municipal operations to prevent and eliminate storm water pollution.

(3) Methods of determining contribution of storm water.

a. Contributions of storm water from non-residential parcels and residential parcels larger than duplexes have been ascertained by determining and measuring impervious surface area using current aerial photography or from approved project plans.

b. Contributions of storm water from residential parcels have been ascertained by measuring impervious area on randomly selected parcels, to obtain an average impervious area.

(4) Method of determining service fee rates: Storm drainage service fees shall be assessed on each parcel of real property within the City (including City-owned properties), except government-owned streets and utility, state or county storm water facilities. Monthly

service fees shall set forth in the Consolidated Fee Schedule and shall be differentiated according to the following classifications:

a. Rate A: This is the standard rate which shall apply to all parcels which contribute runoff to the storm water system and do not qualify for a lesser rate. Rate A applies to:
    i. Single-family residential parcels. Each parcel shall constitute one Equivalent Residential Unit (ERU).
    ii. Duplex parcels. Each duplex parcel shall be charged two ERU's per parcel, or one ERU per dwelling unit.
    iii. Planned Unit Developments (PUDs) or Condominiums which choose to have individual property owners billed separately, rather than paying for the entire development on one bill.
    iv. Other parcels. Charges for all other parcels shall be computed by multiplying the total ERU's for a parcel by the monthly rate.
b. Rate B:
    i. Properties which Implement Treatment Control Best Management Practices. A reduced rate is available for commercial, industrial, institutional and multi-family developments which implement long term Best Management Practices (BMPs) to reduce or remove pollutants from storm runoff, before it leaves the development site. Eligible BMPs are listed in the Guidance Document for Storm Water Management, under Commercial and Industrial BMPs for treatment control. To qualify for this rate, the owner or representative of a parcel must:
        A. Obtain BMP approval and secure a Storm Water Management Permit through the West Valley City Engineering Division.
        B. Agree to allow annual inspections of the property to ensure the approved BMP is still in place and properly maintained. If BMPs are not properly maintained, the site will no longer qualify for a reduced rate.
    ii. Planned Unit Developments (PUDs) and Condominiums. Rate B applies to Planned Unit Developments (PUDs) and Condominiums with a total impervious surface area less than 1 Equivalent Residential Unit (ERU) per unit, provided that the entire PUD development site and/or Condominium development site is billed under one bill.
    iii. <u>Properties which retain the first 0.38 inches of rain runoff (2-year 30 minute storm) for new development projects, and 0.28 inches of rain runoff (2-year 15 minute storm) for re-development projects. Water is to be stored on-site using Low Impact Development techniques. To qualify for this rate, the owner or representative of a parcel must:</u>
        A. <u>Submit plans to the Engineering Division for approval showing drainage calculations to compute runoff volumes, and show how runoff will be permanently stored on-site for infiltration.</u>
c. Rate C: Some areas of the City are designated as retention or infiltration areas in the Storm Drainage Master Plan. Developments in these areas are designed to discharge no storm water runoff from the site. These properties and properties in other parts of the City, which retain all storm water on site, are beneficiaries of the Storm Water Utility, even though they have no direct storm water discharge.

An analysis of the Utility costs has shown that approximately one half of the Utility's costs are fixed program expenditures not directly affected by runoff from individual parcels. The costs of compliance with the City's UPDES Permit, and maintenance of the City's street drainage system are examples of fixed costs, which benefit properties not contributing runoff to the Storm Water Utility system. Rate C applies to all properties which retain all storm water runoff. Planned Unit Developments (PUDs) or Condominiums that meet retainage requirements under this Section may be charged Rate "C."

d. No charge: There will be no service charge for undeveloped parcels. Similarly, there will be no charge for sparsely developed parcels which include impervious surface areas which are:
    i. Within a parcel, or combination of parcels with the same ownership, which exceeds 100 acres in size; and
    ii. Distant from the storm drainage system, such that the possibility of a future connection to the system is remote; and
    iii. Isolated from other impervious areas; and
    iv. Adjacent to an undeveloped area of equal size, owned or controlled by the same property owner, capable of absorbing the runoff from the impervious surfaces.

Section 3. Severability. If any provision of this Ordinance is declared to be invalid by a court of competent jurisdiction, the remainder shall not be affected thereby.

Section 4. Effective Date. This Ordinance shall take effect immediately upon posting in the manner required by law.

PASSED and APPROVED this _____ day of _____, 2016.

WEST VALLEY CITY

_____
MAYOR

ATTEST:

_____
CITY RECORDER

Item: _____
Fiscal Impact: n/a
Funding Source: _____
Account #: _____

Budget Opening Required: No

ISSUE:

Adopt Public Works Department Engineering Standards

SYNOPSIS:

Engineering standards require city council adoption

BACKGROUND:

The Engineering Standards as prepared by the Public Works Department provide for the uniform and quality construction of public improvements to be installed by private developers.

The Engineering Division has compiled previous engineering standards and procedures into a single document that will be available to the public. These standards provide guidance to private developers, contractors, utility companies and other individuals working in the city's right of way.

A more substantial change included in the new standards will be the requirement of new development and redevelopment projects to prepare a Drainage Analysis, which will include the evaluation and potential implementation of Low Impact Development (LID) techniques. LID employs principles such as preserving and recreating natural landscape features, minimizing effective imperviousness to create functional and appealing site drainage that treat storm water as a resource rather than a waste product. The city is required through its Storm Water Permit from the State of Utah to encourage LID in new development and redevelopment projects.

As required by Utah state code and city code, Engineering standards are to be adopted by the city council prior to taking affect, and any future modifications to the standards will be presented to the council for adoption as well.

RECOMMENDATION:

Adopt the 2016 Engineering Standards

SUBMITTED BY:

Daniel Johnson, City Engineer

WEST VALLEY CITY, UTAH

RESOLUTION NO. _____

A RESOLUTION AUTHORIZING THE EXECUTION OF THE ADOPTION OF PUBLIC WORKS ENGINEERING STANDARDS.

WHEREAS, the Engineering Division has compiled engineering standards and procedures into a single document that will be available to the public. These standards provide guidance to private developers, contractors, utility companies and other individuals working in the City's right of way; and

WHEREAS, the new standards will require new development and redevelopment projects to prepare a Drainage Analysis, to include the evaluation and potential implementation of Low Impact Development (LID) techniques. The City is required through its Storm Water Permit from the State of Utah to encourage LID in new development and redevelopment projects; and

WHEREAS, the Public Works Department deems it to be in the best interest of the citizens of West Valley City to authorize the adoption of the above-referenced Engineering Standards; and

NOW, THEREFORE, BE IT RESOLVED by the City Council of West Valley City, that the Engineering Standards are hereby approved in substantially the form attached, and that the Mayor is hereby authorized to execute said adoption of the Engineering Standards for and on behalf of West Valley City.

PASSED, APPROVED and MADE EFFECTIVE this _____ day of _____, 2016.

WEST VALLEY CITY

_____
MAYOR

ATTEST:

_____
CITY RECORDER

WEST VALLEY CITY ENGINEERING STANDARDS

APPLICABLE FOR WORK IN THE PUBLIC RIGHT OF WAY AND ON PUBLIC INFRASTRUCTURE AND APPURTENANCES

WEST VALLEY CITY PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

JANUARY 2016

Table of Contents

Part 1: Introduction - West Valley City Engineering Standards

These Engineering Standards are intended to provide a foundation for design and construction and to ensure quality and uniform construction of public infrastructure in West Valley City.

All public improvements constructed in the city right of way are required to comply with these standards. Some engineering standards are also applicable to private development site design, and all new development and redevelopment projects are required to adhere to these standards. Design exceptions to specific standards will be considered and must be approved by the City Engineer.

Part 2: Standard Specifications and Standard Drawings

West Valley City uses the APWA Standard Specifications. APWA standard specifications and drawings are available for purchase from the Utah Chapter of the American Public Works Association (APWA), via the Utah Chapter website.

http://utah.apwa.net

2.1 APWA Manual of Standard Specifications – 2012 Edition

2.1.1 Modifications to the APWA Standard Specifications

APWA issued Amendment No. 1, (available for download at the APWA website), which replaces the following sections:

Section 32 12 05 – Asphalt Concrete
Section 32 12 06 – Superpave
Section 32 12 07 – Oil Sand Concrete
Section 32 12.16.18 – Recycled Asphalt Paving

Amendment No. 1 adds the following sections:

Section 32 12 05 – Bituminous Concrete
Section 32 12.16.18 – Recycle Bituminous Pavement

2.1.1.1 West Valley City Special Provisions

The following sections of the APWA Standard Specifications have been modified by West Valley City. These Special Provisions replace or supplement the APWA Standard Specifications, and are available for download on the Engineering Division webpage.

Section 32 12 05 – Bituminous Concrete (West Valley City change to APWA Amendment 1)
Section 32 12 13.13 – Tack Coat
Section 32 32 16.13 – Plant Mix Asphalt Paving
Section 33 05 20 – Backfilling Trenches

2.2 APWA Manual of Standard Drawings – 2012 Edition

The drawings listed in the section below are adopted as standard drawings. Other plans in the APWA Manual of Standard Drawings may be used if proposed under specific circumstances.

2.2.1 APWA Adopted Standard Drawings:

Plan 205 – Type A Curb and Gutter
Plan 211 – Waterway
Plan 213 – Waterway Transition Structure
Plan 215 – Dip Driveway Approach
Plan 221 – Flare Driveway Approach – Type A
Plan 222 – Saw-cut Driveway Approach
Plan 231 – Sidewalk
Plan 235 – Corner Curb Cut Assembly
Plan 236 – Midblock Curb Cut Assembly
Plan 238 – Detectable Warning Surface - (Detectable warning surface color shall be yellow – exceptions must be approved by the City Engineer).
Plan 251 – Asphalt Concrete Pavement Tie-In
Plan 255 – Asphalt Concrete T-Patch
Plan 302 – 30" Frame and Cover
Plan 303 – 44" Frame and Cover
Plan 308 – 35-1/2" Grate and Frame
Plan 315 – Catch Basin
Plan 316 – Combination Catch Basin and Cleanout Box
Plan 381 – Trench Backfill
Plan 382 – Pipe Zone Backfill

2.3 West Valley City Standard Drawings

The following standard drawings are available for download on the Engineering Division webpage.

WVC 331 - Cleanout Box – A modified version of the APWA Plan 331 – Type B
WVC General Street Light Detail
WVC LP-01 – 40W LED Residential
WVC LP-02 – 40W LED Arterial Less than 80' ROW
WVC LP-03 – 80W LED Arterial Over 80' ROW
WVC LP-04 – 80W LED 3500 South Double
WVC LP-05 – Sidewalk – Lake Park Pole LED
WVC LP-06 – Lake Park Median
WVC LP-07 – Industrial Standard

Part 3: Roadway Design

3.1 General Roadway Design Elements

3.1.1 Horizontal Alignment

1. Make horizontal alignments as direct as possible and consistent with topography.
2. Horizontal curves must meet AASHTO standards. Avoid minimum horizontal curve radii.
3. Avoid sharp curves at the end of long tangents.
4. Avoid short lengths on curves on small deflection angles of horizontal alignment.
5. Avoid compound circular curves with large difference in radii.
6. Avoid the use of "broken-back curves" (two curves in the same direction on either side of a short tangent or large radius curve).
7. Avoid the use of direct reverse curves. Use a tangent length between the curves.

3.1.2 Vertical Alignment

Vertical curves should be used to enable gradual changes between tangent grades. Crest and Sag Vertical Curves shall be governed by *K values* as shown in the latest edition of *AASHTO - A Policy on Geometric Design of Highways and Streets.* A K value of 167 shall not be exceeded on vertical curves.

Design Speed	Maximum Algebraic Difference without Vertical Curve
Less than or equal to 30 mph	2.0%
Greater than 30 mph	1.0%

3.1.3 Longitudinal Street Grades

1. Longitudinal grades of streets without curb and gutter shall not be less than 0.5%.
2. Longitudinal grades of streets with curb and gutter is preferred to have a minimum of 0.5%, but no grade shall be less than 0.3%.
3. Maximum Grades: Longitudinal grades of streets shall not be greater than 8%. Any exception to this standard must be approved in writing by the City Engineer. No roadway will be approved with a longitudinal grade of 12% or greater.

3.1.4 Cross Slope

Street cross slope on new construction shall be 2%. When widening the shoulder on existing pavement maintain cross slope between 1% and 4%. It may be necessary to remove additional pavement to meet cross slope requirements.

3.1.5 Sight Stopping Distance

Sight distance requirements are as defined by the latest edition of *AASHTO - A Policy on Geometric Design of Highways and Streets*.

3.1.6 Design Speed

Local streets: 25 mph (lower design speeds may be considered on local urban streets with approval of the City Engineer)

Collector Streets: 40 mph

Arterial Streets: 45 mph

Any exception to this standard must be approved in writing by the City Engineer.

3.1.7 Intersection Design

Intersections should be designed with as much sight distance as possible, conforming to AASHTO design standards.

Roads may not intersect with an angle greater than 5° from perpendicular.

Intersection grades should be as flat as possible while still maintaining drainage.

Maximum grade for curb radii shall be 5%, with exceptions being approved by the City Engineer.

Intersecting roads must be spaced at least 150 feet apart, as measured from centerline to centerline. Intersecting road spacing must be approved by the City Engineer.

3.1.7.1 Back of Curb Radius of Curb Returns

Back of curb curve radii for various intersecting street right of way widths are as shown in the following table (in feet).

		Right of Way Width (ft)				
		54	**60**	**66**	**80**	**106**
Right of Way Width (ft)	**106**	30	30	35	45	45
	80	25	25	35	40	
	66	25	25	30		
	60	25	25			
	54	25				

A larger radius than is shown in the table may need to be used in areas of higher truck turning volume, where a turning template indicates necessity.

3.1.8 Access Management

Driveway access to properties shall be per West Valley City Code 7-9-108 – Parking Lot Access.

3.1.9 Dead End Roadways

Dead end roadways shall conform to West Valley City Code 7-19-805.

The maximum length for a single access street shall not exceed 30-single family units, or 100-multi-family units.

3.1.9.1 Cul-de-Sac Design:

Roadways must be terminated with a cul-de-sac, per West Valley City Code 7-19-805, (4), d., ii.

Cul-de-Sacs must be designed according to the following criteria:

Residential Streets:

Radius at the Right of Way:	52 feet
Radius at Top Back of Curb:	42 feet
Radius at the Lip of Gutter:	39.5 feet

Commercial or Industrial Streets (66’ ROW or Greater)

Radius at the Right of Way:	60 feet
Radius at Top Back of Curb:	50 feet
Radius at the Lip of Gutter:	47.5 feet

A larger radius may be required in areas of anticipated high volume use or as determined by the City Engineer.

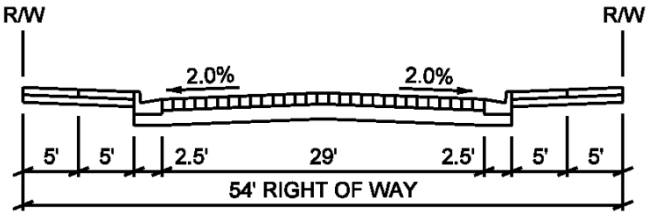
3.1.9.1.1 Maximum cul-de-sac length

The maximum length of a cul-de-sac is 750-feet, as measured along the centerline from the right-of-way line of the connecting street to the point of curvature on the radius entering the cul-de-sac.

3.2 Typical Section Elements

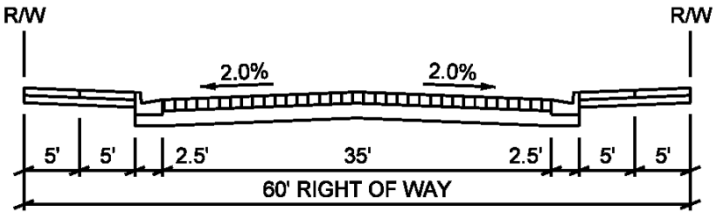
3.2.1 Subdivision Street Sections

3.2.1.1 54 foot ROW - Minor Street – 29 feet of pavement

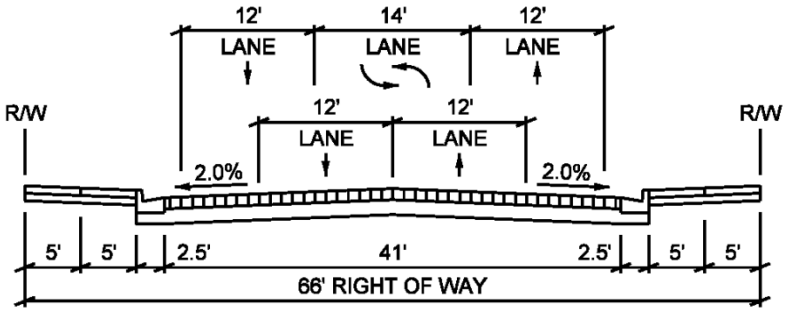


A 44 foot right of way road section without park strip may be allowed in certain infill development circumstances, with approval of the City Engineer.

3.2.1.2 60 foot ROW - Minor Collector Street Section – 35 feet of pavement

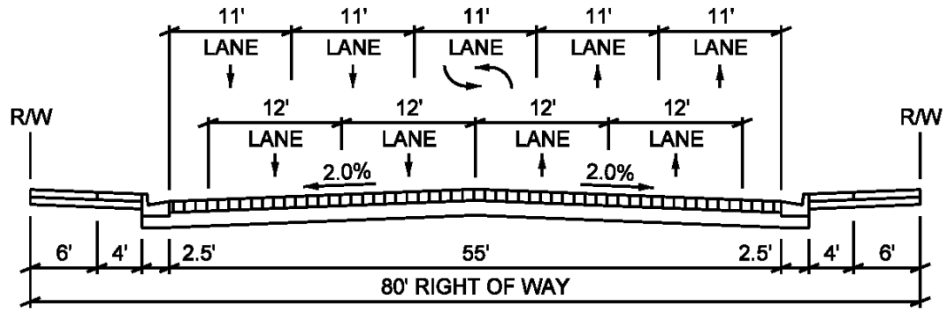


3.2.1.3 66 foot ROW - Collector Section – 41 feet of pavement



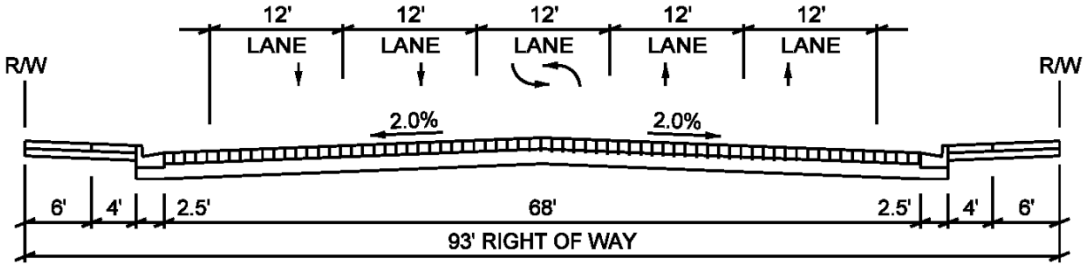
3.2.1.4 80 foot ROW - Minor Arterial Section – 55 feet of pavement

For use on existing 80-foot rights of way.

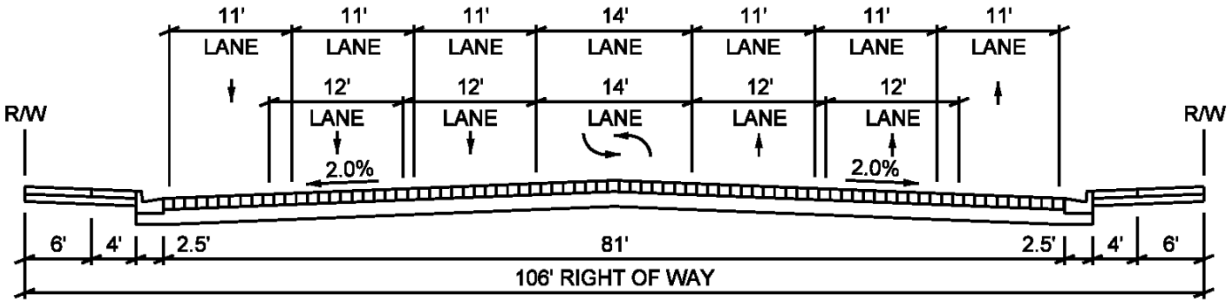


3.2.1.5 93 foot ROW – Minor Arterial Section 68 feet of pavement

For use on new minor arterial roadways.



3.2.1.6 106 foot ROW - Major Arterial Section – 81 feet of pavement



3.2.2 Bike Lanes

Streets on the City Bike Plan – Class 2 Bike Lanes – Add a minimum of 8 feet of total pavement width (to allow for one 4-foot bike lane on each side of the street). The Bike Plan is part of the West Valley City General Plan; *Vision West 2035*, under the Transportation Chapter, and can be found on the City's Website.

http://www.wvc-ut.gov/450/General-Plan

3.2.3 Curb and Gutter, Sidewalk

1. Curb and Gutter is required on all streets. Curb and Gutter to be per APWA Plan 205, Type A (30-inch). Other types of curb and gutter may be considered in unique instances, but must be approved by the City Engineer.
2. Sidewalks on arterial streets shall not be less than 6-feet in width. (West Valley City Code 7-19-805, (5), b.)
3. Sidewalk ramps are required at all intersections and mid-block crosswalks. Any exceptions must be approved by the City Engineer.
4. In residential areas, sidewalks through the drive approach must be 6-inches thick, as shown on APWA Plan 215, and 221. Sidewalks in subdivisions with a park strip are to be constructed per APWA 231, 4-inches thick. In residential subdivisions where the locations of drive approaches are not known at the time of the sidewalk construction, the developer may choose either to construct all sidewalk 6-inches thick, or to remove 4-inch thick sidewalk through the driveway, and replace with 6-inch thick sidewalk. Sidewalk is to be 8-inches thick through the driveway in commercial or industrial areas.
5. In areas where walls are required in double frontage lots or other scenarios, patterned colored concrete will be required in the park strip.
6. In general, sidewalk should be placed with a 2% cross slope draining toward the street. The elevation of the sidewalk is determined by projecting up 2% through the park strip from the top back of curb elevation. If a cross slope through the park strip greater than 2% is necessary, a design exception must be given.

3.3 Pavement Design

3.3.1 Rigid Pavement

3.3.1.1 Minimum Rigid Pavement Section

Portland Cement Concrete Pavement (PCCP) designs should be prepared by a geotechnical engineer, and approved by the City Engineer.

Pavement designs will include load transfer bars at each joint in the wheel path.

3.3.2 Flexible Pavement

3.3.2.1 Minimum Pavement Section

As part of the subdivision approval process, a soils report is required to be prepared by a Professional Engineer, specializing in geotechnical engineering and soil mechanics. The soils report must include pavement section recommendations using generally accepted engineering practices and methods. The soils report must include a CBR value for existing subgrade soils under proposed pavements.

The minimum pavement sections are shown in the table below.

		Street Classification (as defined in West Valley City Code 7-19-805)		
Subgrade Class	Pavement Section	**Minor Street**	**Minor Collector**	**Collector or Greater (66' ROW +)**
Very Poor (CBR<3)	Asphalt Pavement	3.5-inches	4-inches	6-inches
	Untreated Base Course – Grade 1, or 1-1/2	8-inches	8-inches	10-inches
	Granular Borrow	10-inches	10-inches	12-inches
	Non-woven Geotextile Fabric Req'd	Yes	Yes	Yes
Poor (CBR 3-9)	Asphalt Pavement	3-inches	3.5-inches	6-inches
	Untreated Base Course – Grade 1, or 1-1/2	12-inches	12-inches	14-inches
	Granular Borrow	0	0	0
	Non-woven Geotextile Fabric Req'd	No	No	No
Medium CBR>9	Asphalt Pavement	3-inches	3.5-inches	6-inches
	Untreated Base Course – Grade 1, or 1-1/2	8-inches	8-inches	10-inches
	Granular Borrow	0	0	0
	Non-woven Geotextile Fabric Req'd	No	No	No

3.4 Traffic Issues

3.4.1 Traffic Impact Studies

A traffic impact study may be required by the City, and must be prepared by a registered Professional Engineer. The traffic study shall include an analysis of on-site circulation, capacities of existing streets, number of additional trips which will be generated, origin/destination studies and peak home traffic generation and movements. West Valley City Code 7-14-106.

3.4.2 Traffic Calming in Residential Neighborhoods

New residential developments must evaluate with the Public Works Department the need for neighborhood traffic calming devices to be installed with the subdivision roadway improvements.

3.5 Roadway Lighting

Per West Valley City Code 7-19-903(2), Street Lights are required to be installed in all new developments.

3.5.1 Required Notes on Street Light Plan

1. All street lighting work shall be performed in accordance with the West Valley City Street Lighting Standards and the A.P.W.A. Standard Plans and Specifications.

2. Electrical contractor shall contact West Valley City at 801-955-3726 prior to commencement of construction.

3. Contractor shall be responsible to inspect poles and fixtures upon delivery to the job site and to protect the same from damage until installation is complete and lighting system is accepted by West Valley City.

4. Contractor shall be responsible to coordinate construction of lighting system with Rocky Mountain Power and West Valley City. Confirm final location of Rocky Mountain Power transformers or secondary boxes before starting construction.

5. All Light poles, fixtures, junction boxes, transformers or secondary boxes, underground conduit and wiring shall be placed only within the public street right-of-way and/or designated public utility easement. All underground work shall be completed and inspected prior to construction of permanent roadway, sidewalk, and curb and gutter.

6. All aspects of street lighting installation shall be inspected by West Valley City. Call West Valley City Transportation Division at 801-955-3726 to schedule inspections at least 24 hours in advance. Two (2) inspections will be required. One (1) pole and underground installation, and one (1) Final inspection after system installation is completed.

7. Anticipate 12 weeks for delivery of street light assemblies from manufacturer.

3.5.1.1 Street Light ID Number

West Valley City Engineering Division will assign Street Light Identification Numbers to be shown on the street lighting plans after the light location has been established.

3.5.2 Street Light Standard Specification

1. General

1.1 - The developer shall show street light locations on all residential, commercial, and industrial development plats. Street lights should be placed at lot line boundaries to avoid unnecessary obstruction along the property frontage. The Transportation Engineer may require additional or fewer street lights at his discretion. Additional street lights may be required in locations where safety hazards or special traffic needs exist.

1.2 - The Developer shall incur all costs for and provide trenching in which subsurface electrical lines may be installed to power the street lighting system as shown on the development plat. Trenching shall be to the depth, width and standards specified by West Valley City.

1.3 - Components of the street lighting system shall be in compliance with the standards, specifications and styles currently adopted by West Valley City for use in the municipal right-of-way.

1.3.1 - The Developer shall purchase the street light assemblies and shall provide materials, equipment and labor necessary to install a complete and operable street lighting system as shown on the development plat.

1.3.2 - See Street Light Assembly Drawings in West Valley City Standard Drawings.

1.4 - The Developer shall schedule a preconstruction meeting with West Valley City Transportation Division, (801-955-3726), prior to any part of construction of the street light system for review of the extent of the project and responsibilities of both parties. Failure to comply will result in rejection and delay of project.

1.5 - Two inspections shall be required. Call West Valley City Transportation Division at (801-955-3726) at least 24 hours in advance to schedule the required inspections.

1.5.1 - Underground system including but not limited to conduit, wiring, boxes, compaction and pole installation.

1.5.2 - Final inspection after system installation for a complete and operable system.

1.6 - Material furnished by West Valley City to the contractor shall be the responsibility of the contractor until final approval of the system at which time the City will take ownership and the one year contractor warranty for labor and underground will begin.

2. Spacing and Placement

2.1 - Street lights shall be placed on alternating sides of the street at 200 feet maximum for roads of less than 60 feet of right-of-way and at 150 feet maximum for roads of greater than or equal to 60 feet of right-of-way.

2.1.1 - Street lights shall be placed at each road intersection and at the end of each cul-de-sac.

2.2 - Sidewalk lights shall be located behind the sidewalk and spaced 90 feet apart where required in overlay zones.

3. Pole Installation

3.1 - Contractor is responsible for any damage to underground utilities or structures. Contractor shall contact Blue Stakes (800-662-4111) prior to any excavation.

3.2 - Contractor is responsible for verification of street light location and restoration of environment compromised by installation.

3.3 - All concrete shall be class 4000 per APWA 03 30 04. Placement shall be compliant with APWA section 03 30 10.

3.4 - Pole shall be plumb and secure.

3.5 - Locate light pole behind signs when there is conflict.

3.6 - All poles located in park strips shall be centered in park strip.

3.7 - Pole shall be cleaned of dirt and debris after installation.

3.8 - On direct burial poles install 24-inch diameter 4-inch thick concrete ring centered on pole and cast in place, (NO Pre-cast is allowed).

4. Junction/Splice Boxes

4.1 - Junction/Splice boxes shall be pre-cast polymer concrete, 25” x 16” x 24”. See Street Light Details drawing.

4.2 - Manufacture lids with “STREET LIGHTING” in the logo area, in 1-inch recessed letters.

4.3 - Lid Access Points: recessed reinforced steel pull slots to allow removal of cover with a hook or lever. Replace lid if damage occurs to the pulling point.

4.4 - Bolts: stainless steel recessed penta head bolts with washer.

4.5 - Place 6 inches of pea gravel on top 12 inches of free draining granular backfill borrow under junction boxes.

4.6 - Level the top of junction box and grade accordingly

4.7 - Install concrete collars around junction boxes in all locations except where junction boxes are in concrete paved surfaces. See Street Light Details drawing.

4.7.1 - Secure ½ inch expansion joint material around the junction box before placing concrete collar.

4.7.2 - In certain areas as determined by the Engineer, junction boxes may be required to be recessed 4-inches, and covered by a 4-inch thick concrete slab as a wire theft deterrent.

5. Points of Connection

5.1 - All points of connection to Rocky Mountain Power facilities shall comply with the current release of the Electric Service Requirements Manual published by Rocky Mountain Power and available at;

http://www.rockymountainpower.net/esr.

6. Wiring

6.1 - The Contractor shall provide two #6RHH copper conductors or equivalent copper burial wires for wiring street lights (the ground must be green color insulation or bare copper).

6.2 - Permanently label the voltage that the wires are carrying inside the junction box (to be approved by WVC). Install dual fuse holder (set screw type only with rubber boots), two 10 amp fuses, and 3-outlet rubberized aluminum bar connector in each junction box.

6.2.1 - No wire nuts allowed.

6.2.2 - No splicing in hand hole except to bond the ground to the pole.

6.3 - All wires shall be placed within a 2 inch conduit a minimum of 24 inches below finished grade. Conduit shall be installed under park strip or within the public utility easement behind integral sidewalk except where crossing streets. Conduit under park strips shall be Schedule 40 PVC and conduit under streets shall be Schedule 80 PVC or rigid steel. Conduit entering junction box shall be 6 inches above pea gravel at bottom of junction box.

6.4 - Seal all conduits in each junction box with duct seal. Polywater FST duct sealant or approved equal. The substituted sealant shall be approved by West Valley City Traffic Engineer prior to ordering.

6.5 - Complete all connections and work per current NEC requirements.

3.5.3 Street Lighting Standard Drawings

Street light standard drawings are available for download from the Engineering Division webpage. Drawings include:

- General Street Light Detail
- WVC LP-01 – 40W LED Residential
- WVC LP-02 – 40W LED Arterial Less than 80’ ROW
- WVC LP-03 – 80W LED Arterial Over 80’ ROW
- WVC LP-04 – 80W LED 3500 South Double
- WVC LP-05 – Sidewalk – Lake Park Pole LED
- WVC LP-06 – Lake Park Median
- WVC LP-07 – Industrial Standard

3.5.4 Streets with Specific Lighting Requirements per West Valley City Code

- Brock Street and East Side of Holmberg Street (West Valley City Code 7-6-1606)
- Market Street and Lehman Avenue (West Valley City Code 7-6-1607)
- Constitution Blvd (West Valley City Code 7-6-1608)
- 3500 South (West Valley City Code 7-6-1609)
- 3650 South (West Valley City Code 7-6-1610)
- Weigh Station Road and Three Mill Lane (West Valley City Code 7-6-1610.10)
- 3500 South and Redwood Road (West Valley City Code 7-13-200P)
- 3500 South Streetscape – 2700 West and Bangerter Highway (West Valley City Code 7-13-300P)
- High Image Arterials as defined in West Valley City Code 7-13-102

Part 4: Drainage Design Standards

The following standards apply to all new development, redevelopment or construction activities within West Valley City.

4.1 Guiding Hydrologic Principles

4.1.1 Pre-Development Hydrology

Pre-development hydrology is defined as the conditions of storm water runoff volumes, peak discharge rates, and infiltration capacity that existed on a site before land disturbance and development occurred. The objective of these design standards is for the hydrology associated with the new development to mirror the pre-development hydrology of the previously undeveloped site or to improve the hydrology of a redeveloped site and reduce the volume of storm water discharged. UTS000001 (Jordan Valley Municipalities MS4 Permit), part 4.2.5.

4.1.2 Low Impact Development (LID)

LID is an approach to land development (or re-development) that works with nature to manage storm water as close to its source as possible. LID employs principles such as preserving and recreating natural landscape features, minimizing effective imperviousness to create functional and appealing site drainage that treat storm water as a resource rather than a waste product. There are many practices that have been used to adhere to these principles such as bio-retention facilities, rain gardens, vegetated rooftops, rain barrels, and permeable pavements. By implementing LID principles and practices, storm water can be managed in a way that reduces the impact of built areas and promotes the natural movement of water within a watershed.

To the extent practicable and technically feasible, low impact development techniques should be employed on new development and re-development projects.

It is recognized that certain Low Impact Development BMPs will not work in soils of low permeability or in areas with high ground water. Infiltration may be less desirable in areas where retention and/or use of storm water onsite or discharge of storm water onsite via infiltration has a significant adverse effect on the site or the down gradient water balance of surface waters, ground waters or receiving watershed ecological processes. The location of underground utilities should also be considered when analyzing certain LID BMPs.

4.2 Drainage Design

4.2.1 Low Impact Development Implementation – Low Impact Development Analysis

New development and re-development applications must include a **Low Impact Development (LID) Analysis** with the objective of mirroring pre-development hydrology. Any LID design must not negatively impact adjoining properties. The LID Analysis must include multiple LID techniques or BMPs, and will include the reasons why the particular techniques or BMPs were included, or why the techniques considered will not work on that particular site.

4.2.1.1 Recommended Low Impact Development Best Management Practices

The following are some BMPs that may be considered for use in an LID implementation. Any other BMPs may also be considered for application.

- Minimize impervious area on the site
- Preserve natural areas undisturbed
- Reduce directly-connected impervious area, using landscaped areas to capture and store runoff from roof drains or drive/parking areas
- Avoid concentrated runoff by distributing water to rain gardens or bio-retention areas to infiltrate or evapo-transpire runoff.
- Pervious pavement or pavers in parking areas or sidewalks
- Rainwater harvesting
- Wet ponds
- In-line underground storage

4.2.1.2 Low Impact Development Technical Resources

The following sites are potential technical resources for the preparation of a Low Impact Development (LID) Analysis.

http://water.epa.gov/polwaste/green/index.cfm

http://lid-stormwater.net/

4.2.1.3 Low Impact Development on Single Family Residential Developments

Single family residential developments where street improvements will be maintained by the city must be submitted with a Low Impact Development (LID) Analysis with the objective of mirroring pre-development hydrology.

4.2.1.4 Low Impact Development on Commercial and Multifamily Developments

Commercial and multifamily development applications must include a Low Impact Development (LID) Analysis with the objective of mirroring pre-development hydrology.

4.2.1.4.1 Storm Water Utility Fee

It is worth noting that the monthly Storm Water Utility fee is assessed on impervious area, and that reductions in the fee may be achieved by reducing impervious area on a commercial or multi-family site.

The Storm Water Utility fee is also assessed under three different rates, each in an amount shown in the Consolidated Fee Schedule: Rate A is the standard rate that applies to all parcels which contribute runoff to the storm water system and do not qualify for a lesser rate. Rate B is assessed to properties which implement Treatment Control Best Management Practices, beyond what was required at the time of development. Rate C applies to all properties which retain all storm water runoff onsite.

From West Valley City Code 20-7-102 "Equivalent Residential Unit (ERU)" means a unit equal to 2,830 square feet of impervious surface area. This is based on an average single-family residential parcel,

which has an impervious surface area of 2,830 square feet. Total ERU's are calculated by dividing total square feet of impervious surface by 2,830 (one ERU), rounded to the nearest whole number. The monthly Storm Water Utility fee is calculated by multiplying the number of ERU's with the qualifying storm water billing rate, and a fee may be reduced by implementing a site design that minimizes the amount of impervious surface.

4.2.1.4.1.1 Storm Water Utility Rate Reduction Eligibility

A new commercial or multi-family development or re-development may qualify for a Storm Water Utility rate reduction if a Low Impact Development design is implemented to the extent that the volume of runoff from the storm depth shown in the table below is captured, distributed and retained throughout the site in areas, such as bio-swales, infiltration basins or other LID volume reducing practices.

Storm Water Utility Rate Reduction for Low Impact Development Capture Volume - Storm Depth			
	SWU - Rate B		
	Return Period	**Storm Duration**	**Rainfall Depth**
New Development	2 year	30 minute	0.38 inches
Re-Development	2 year	15 minute	0.28 inches

Certain areas within the city do not have a storm drain system, and are classified as "Low Impact Development Only" areas. A map of these areas is shown on the Storm Water Release Rate Map, available for download on the Engineering Division webpage. Developing properties in this area will be required to store all water on-site in a manner that does not negatively impact adjacent properties. Storm drain facilities in these areas will be designed to retain a 100 year 24-hour storm event.

4.2.2 Drainage Analysis (Including Low Impact Development Analysis)

All new development and redevelopment sites must submit a drainage analysis, stamped by a Professional Engineer addressing items in this section.

4.2.2.1 Pre-Development Runoff Analysis Required

4.2.2.1.1 New Development

A drainage design for a new development site must include a runoff analysis calculating runoff volumes and peak discharges for pre-development hydrology along with the proposed post-construction runoff.

4.2.2.1.2 Redevelopment

A drainage design for a redevelopment site must include a runoff analysis calculating runoff volumes and peak discharges for the existing conditions of development along with the proposed post-construction runoff.

4.2.2.2 Runoff Volume

To calculate pre and post-development runoff volumes the following methodologies may be used:

- Modified Rational Formula Based FAA Method
- SCS Curve Number Method

Other hydrologic methods may be considered.

4.2.2.3 LID Capture Volume

The LID Capture Volume is defined as the volume of water that is stored on-site using LID techniques.

4.2.2.3.1 Target LID Capture Volume for New Development

The Target LID Capture Volume for a new development site is the volume of water infiltrated into the undeveloped parcel of land from a 2-Year 30-Minute storm.

4.2.2.3.2 Target LID Capture Volume for Redevelopment

The Target LID Capture Volume for a redevelopment site is the volume of water infiltrated into the redevelopment site from a 2-Year 15-Minute storm.

A Low Impact Development Analysis must include calculations to determine if the Target LID Capture Volume has been met.

4.2.2.4 Low Impact Development Storage

A Low Impact Development analysis for any development or redevelopment will include the calculations showing how the LID Capture Volume is determined and where the storage is provided on the site. The LID Capture Volume may not connect to the storm drain to be eligible for any rate reduction. The LID storage areas may not be altered in the future without a re-submittal of the Low Impact Development Analysis.

4.2.2.5 Peak Discharge and Detention Volume Calculation

Drainage plans are to be prepared by a Professional Engineer using acceptable hydrologic practices.

Storm water detention is required in various locations within the city to control system wide flood peaks, by capturing storm water onsite and releasing into the city system at a controlled reduced rate.

After volume reductions from low impact development techniques have been established, the peak discharge will be limited to the allowable release rate shown on the Engineering Division Storm Water Release Rate Map (see Appendix of these standards). The Engineering Division has the latitude to modify the release rate for any given development parcel depending on the capacity of the storm drain system. Detention storage volumes required beyond the LID Capture Volume will be calculated based on the allowable release rate.

The total amount of detention storage required on a site equals the normally required detention volume minus the LID Capture Volume storage provided. Required detention storage can also include the LID Capture Volume.

Storm water detention in addition to LID Capture Volume may be stored in detention basins, parking areas, landscaped areas, or underground in pipes or storage chambers. Underground storage using open-bottom chambers will require detail drawings and an evaluation of sub-surface conditions (water table, soil type, etc…) in order to demonstrate feasibility.

Detention calculations should be based on a 10-year storm. Modified Rational Based FAA Method may be used to calculate required detention. Other detention basin sizing methods may be used, together with an approved rainfall distribution.

4.2.2.6 Retention

In some areas of the city (as shown on the Engineering Division Storm Water Release Rate Map) there is no public storm drain system available to receive site runoff, and offsite discharge is not allowed. In these areas complete storm water retention is required. LID practices and/or ponds are to be sized to store the entire runoff volume of a 100-year 24 hour storm.

4.2.2.7 Other Elements of Drainage Analysis

Submit with the Drainage Analysis a report containing all relevant data and calculations. Include a narrative describing hydrologic methodology and software used to determine runoff, routing and other applicable information.

Complete layout of storm drainage system is required as part of the Drainage Analysis. Show drainage areas that will contribute to storm flows, both on-site and off-site. Provide data indicating cumulative pipe flows and full flow capacities for each segment of pipe. Each pipe segment is to be labeled with length, pipe material type, diameter and slope. Provide arrows indicating the flow direction of each pipe.

4.2.3 Design Storms – Precipitation Depths

A design storm is shown below for areas below an elevation of 4500 feet, and above an elevation of 4500 feet. The storm data is established from a NOAA Atlas 14 – Point Precipitation Frequency Estimate from representative areas.

DESIGN STORM FOR AREAS BELOW 4500 FEET IN ELEVATION								
	NOAA Atlas 14 Point Precipitation Frequency Analysis (Depth and Intensity) - For use in areas BELOW 4500 feet.							
	1-Year		2-Year		10-Year		100-Year	
	Depth	Intensity	Depth	Intensity	Depth	Intensity	Depth	Intensity
5-min	0.12 in	1.44 in/hr	0.15 in	1.81 in/hr	0.26 in	3.12 in/hr	0.52 in	6.28 in/hr
10-min	0.18 in	1.10 in/hr	0.23 in	1.38 in/hr	0.40 in	2.38 in/hr	0.80 in	4.78 in/hr
15-min	0.23 in	0.91 in/hr	0.29 in	1.14 in/hr	0.49 in	1.96 in/hr	0.99 in	3.95 in/hr
30-min	0.31 in	0.61 in/hr	0.39 in	0.77 in/hr	0.66 in	1.32 in/hr	1.33 in	2.66 in/hr
60-min	0.38 in	0.38 in/hr	0.48 in	0.48 in/hr	0.82 in	0.82 in/hr	1.65 in	1.65 in/hr
2-hr	0.49 in	0.24 in/hr	0.61 in	0.30 in/hr	0.96 in	0.48 in/hr	1.82 in	0.91 in/hr
3-hr	0.57 in	0.19 in/hr	0.70 in	0.23 in/hr	1.04 in	0.35 in/hr	1.85 in	0.62 in/hr
6-hr	0.73 in	0.12 in/hr	0.89 in	0.15 in/hr	1.25 in	0.21 in/hr	1.97 in	0.33 in/hr
12-hr	0.90 in	0.08 in/hr	1.10 in	0.09 in/hr	1.52 in	0.13 in/hr	2.32 in	0.19 in/hr
24-hr	1.06 in	0.04 in/hr	1.30 in	0.05 in/hr	1.75 in	0.07 in/hr	2.48 in	0.10 in/hr

DESIGN STORM FOR AREAS ABOVE 4500 FEET IN ELEVATION								
	NOAA Atlas 14 Point Precipitation Frequency Analysis (Depth and Intensity) - For use in areas ABOVE 4500 feet.							
	1-Year		2-Year		10-Year		100-Year	
	Depth	Intensity	Depth	Intensity	Depth	Intensity	Depth	Intensity
5-min	0.12 in	1.49 in/hr	0.16 in	1.88 in/hr	0.27 in	3.23 in/hr	0.53 in	6.41 in/hr
10-min	0.19 in	1.13 in/hr	0.24 in	1.43 in/hr	0.41 in	2.46 in/hr	0.81 in	4.88 in/hr
15-min	0.23 in	0.94 in/hr	0.30 in	1.18 in/hr	0.51 in	2.03 in/hr	1.01 in	4.04 in/hr
30-min	0.32 in	0.63 in/hr	0.40 in	0.80 in/hr	0.68 in	1.37 in/hr	1.36 in	2.72 in/hr
60-min	0.39 in	0.39 in/hr	0.49 in	0.49 in/hr	0.85 in	0.85 in/hr	1.68 in	1.68 in/hr
2-hr	0.49 in	0.25 in/hr	0.62 in	0.31 in/hr	0.98 in	0.49 in/hr	1.84 in	0.92 in/hr
3-hr	0.58 in	0.19 in/hr	0.71 in	0.24 in/hr	1.06 in	0.35 in/hr	1.88 in	0.63 in/hr
6-hr	0.75 in	0.12 in/hr	0.92 in	0.15 in/hr	1.29 in	0.22 in/hr	2.03 in	0.34 in/hr
12-hr	0.94 in	0.08 in/hr	1.14 in	0.10 in/hr	1.58 in	0.13 in/hr	2.40 in	0.20 in/hr
24-hr	1.14 in	0.05 in/hr	1.40 in	0.06 in/hr	1.91 in	0.08 in/hr	2.71 in	0.11 in/hr

4.2.4 Water Quality Standards

4.2.4.1 Pollutant Removal Requirements

A Drainage Analysis will include a summary of potential pollutants that could be generated from the site after construction stabilization has occurred. The Drainage Analysis will include structural and non-structural BMPs that will be included on the site to prevent the discharge of potential pollutants.

Potential pollutants from certain site operations are shown in the table below. This is not a comprehensive list.

Potential Pollutants from Various Site Operations					
Pollutant of Concern	Vehicle Operations	Waste Management	Site Maintenance Practices	Outdoor Materials	Landscaping
Nutrients			X	X	X
Pesticides			X	X	X
Solvents			X	X	
Fuels			X	X	
Oil and grease	X			X	
Toxic chemicals		X		X	
Sediment		X	X	X	X
Road salt			X	X	
Bacteria		X			X
Trace metals	X			X	
Hydrocarbons	X			X	

Projects involving vehicle fueling should include BMPs designed to capture hydrocarbons. Projects must include the ability to isolate and store potential high-volume spills on-site.

BMPs selected for use on a project must be included in the Post-Construction (Long Term) Storm Water Management Plan, along with maintenance plans. See section on Drainage Related Permitting in these standards for more information on the Storm Water Management Plan requirements.

4.2.4.2 Other Water Quality Measures

Grease interceptors on sanitary sewer service lines should be located within a depressed landscaped area where feasible to prevent overflows from entering the storm drain system.

4.2.5 Storm Drain Design for Publicly Owned Systems

4.2.5.1 Pipe Sizing

All pipes in the public storm drain system are to be sized to pass the peak flow on a 10-year 3-hour storm without pressurizing. Peak flow shall be determined after runoff has been calculated using an approved rainfall distribution through time, addressed in the section below.

Minimum pipe size in the public right of way is 15-inch. Exceptions must be approved by the City Engineer. Pipe sizing calculations must be prepared by a Professional Engineer.

4.2.5.2 Rainfall Distribution

To compute runoff from a given storm, the distribution of rainfall through time must be known. Critical rain events in the region occur as cloudburst storms, with short durations of high intensity of rainfall. In sizing pipes, use a rainfall distribution reflecting these cloudburst rainfall events.

Options for a rainfall distribution could include a transformed SCS Type II distribution, or a Salt Lake County modified "Farmer-Fletcher" Distribution.

A rainfall distribution is available for download from the Engineering Division webpage.

4.2.5.3 Minimum Velocity

Maintain a minimum velocity of 2.5 feet per second in all gravity pipe culverts, assuming the pipe is flowing full. Exceptions must be approved by the City Engineer.

4.2.5.4 Pipe Type

All storm drain or irrigation pipe in the public right of way shall be reinforced concrete pipe. Class of pipe is determined from recommendations of pipe manufacturers, based on soil type, depth of cover and loads.

Storm drain pipes (city-owned) located outside of the public right of way are required to be reinforced concrete pipe. Other pipe types may be considered for a certain application, and must be approved by the City Engineer.

A video inspection of all city-owned storm drain pipe is required at the expense of the developer in order to process the 90% Bond release.

4.2.5.5 Storm Drain Boxes

Storm Drain Cleanout Boxes shall be per the West Valley City Storm Drain Cleanout Box standard detail.

Other Storm Drain Boxes (Catch Basins, and Combination Catch Basin/Cleanout Boxes) shall be per APWA 315 and 316.

Thin walled "knock-out" boxes are not approved for use in the public right-of-way.

Deviations from this standard must be approved by the City Engineer.

4.2.5.6 Storm Drain Layout Principles

4.2.5.6.1 Use of Waterways or Cross-Gutters

In general, avoid the use of waterways or cross-gutters. No mid-block waterways are allowed. Waterways are not allowed at intersections of streets of right of way widths of 66-feet or larger. Any exception must be approved by the City Engineer.

4.2.5.6.2 Silt Traps

In general, do not install silt traps in each catch basin. Install silt traps in selected cleanout boxes at strategic locations designed to maximize the amount of silt that can be cleaned from a single box.

4.2.5.6.3 Cleanout Spacing

Do not exceed a distance of 300 feet between cleanout accesses. Exceptions must be approved by the City Engineer.

4.2.5.6.4 Inlet Spacing

Drainage inlets are sized and located to limit the spread of water into traffic lanes. The following table summarizes allowable spread of water under various conditions.

Gutter Spread Design Criteria			
Roadway Classification		Design Frequency	Allowable Spread
Subdivision Streets		10-Year	Gutter + 6-feet
Collector	< 45 mph	10-Year	Gutter + 6-feet
	Sag Point	10-Year	Gutter + 3-feet
Arterial (ROW > than 66')	< 45 mph	10-Year	Gutter + 3-feet
	Sag Point	50-Year	Gutter + 6-feet

The Rational Method is an acceptable method for calculating momentary peak-flow rate for use in spread calculations.

4.2.6 Drainage Analysis Requirements Summary

All drainage analyses will address the following design elements.

- Low Impact Development Analysis
  - Pre-Development runoff volume analysis
  - Post-Development runoff volume analysis
  - LID BMP analysis
  - Low Impact Development Capture Volume storage calculations
  - Summary of potential post-construction pollutants
  - Water Quality BMP selection rationale
  - Peak discharge and storage calculations
- Storm Drain Design on Publicly Owned Systems
  - Hydrologic analysis and rainfall distribution
  - Pipe sizing calculations
  - Inlet spacing and gutter spread calculations

4.3 Drainage Related Permitting

4.3.1 Storm Water Permits – Construction Period vs. Post-Construction (Long Term)

A project will be required to obtain a West Valley City *Storm Water Management Permit* if the proposed work meets the requirements of Title 18-2-101 or 18-7-106 (largely based on area of disturbed soil). The *Storm Water Management Permit* addresses two separate components of storm water quality and is issued as two separate permits. The first component of the *Storm Water Management Permit* covers construction activities, and the second covers the post-construction (long term) storm water management of a proposed development, re-development or other improvements. The construction *Storm Water Management Permit* may be issued prior to full plan approval to allow for early site grading. The post-construction *Storm Water Management Permit* must be completed prior to issuance of a building permit or other type of permit.

4.3.1.1 Construction Period - Storm Water Management Permit

Address the following requirements to obtain a Construction Period Storm Water Management Permit.

4.3.1.1.1 Storm Water Pollution Prevention Plan (SWPPP)

Prepare a site-specific Storm Water Pollution Prevention Plan (SWPPP) for any site requiring a Construction Period Storm Water Management Permit. The SWPPP shall be prepared by a competent professional with experience in developing SWPPPs.

4.3.1.1.2 SWPPP Preparation Guidelines

The following are some of the resources available for use in the preparation of a Storm Water Pollution Prevention Plan:

- DWQ SWPPP Template, and other guides – available on the Utah Department of Environmental Quality - Division of Water Quality website, under “Construction Activities”
- West Valley City Guidance Document for Storm Water Management is available for download on the Engineering Division webpage.

4.3.1.1.3 NOI Required

A Utah State Notice of Intent (NOI) is required whenever one acre or more will be disturbed, or when a parcel less than one acre, but part of a larger common plan of development is disturbed. Application for NOI obligates the project to comply with all requirements contained in the UPDES General Permit for Discharges from Construction Activities (UTRC00000).

West Valley City storm water permits will not be issued until a copy of the NOI has been submitted to the Engineering Division.

4.3.1.1.4 NOI on Lots Smaller than One Acre

An NOI is also required on lots smaller than one acre when that lot is part of a common plan of development larger than one acre. An NOI will only be required on these smaller lots when the larger development has been stabilized, and when the NOT (Notice of Termination) has been issued for the larger common plan of development.

Construction on lots smaller than one acre which are part of a larger common plan of development will require a storm water pollution prevention plan, and a West Valley City Construction Storm Water Permit.

4.3.1.2 Post-Construction (Long Term) - Storm Water Management Permit Requirements

4.3.1.2.1 Storm Water Management Plan (SWMP)

All new development and redevelopment projects are required to develop a Storm Water Management Plan. Using the *Guidance Document for Storm Water Management* or other resources, prepare a Post-Construction (Long Term) Storm Water Management Plan (SWMP) to address long term storm water quality issues. SWMP must address the treatment of potential pollutant sources (as identified in the drainage analysis) from the proposed land use, BMPs to address the potential pollutants, maintenance practices of proposed BMPs, employee training, landscape maintenance, waste disposal and any other long term practice that will be required to maintain quality storm water runoff.

The SWMP will become part of the Storm Water Management Permit and annual post-construction inspections will be performed by the Engineering Division to ensure compliance with the requirements of the permit. **The SWMP is best prepared by the property owner, as they will be required to adhere to the plan in perpetuity.**

4.3.1.2.1.1 Storm Water Management Plan Outline

Commercial/Industrial Best Management Practices (BMPs) are those measures and/or practices to be maintained by the property owner or operator to prevent illicit discharges, pollutants and other contaminants from entering the City storm water system. These measures and practices are to be implemented upon completion of construction activities, to be conducted and maintained in perpetuity, and will typically address the following:

- Inspection and cleaning of Oil/Water Separator(s) – Indicate that oil/water separator(s) are to be inspected monthly and are to be cleaned at least every six months.
- Parking lot cleaning and sweeping – Indicate that parking lots are to be cleaned and swept at least monthly to prevent pollutants from entering the storm drain system.
- No washing of vehicles permitted on site – Indicate that no washing of vehicles will be permitted on site. The only exception is for specifically designed and approved car or truck washing facilities which drain to the sanitary sewer system.
- Storage of chemicals, cleaners, solvents, oils etc. – Indicate what chemicals, cleaners, solvents, oils, etc. will be stored; where they will be stored; and how they will be stored.
- Waste management and disposal – Indicate what will be disposed of, where they will be disposed of, how they will be disposed of, and by whom.
- Landscape maintenance – Indicate what general landscaping maintenance will be needed, what fertilizers will be used, and who will perform the maintenance, and what BMPs will be implemented to prevent pollution of discharged water.
- Employee training – Indicate that property owner is to provide or require training in storm water quality management and required commercial/industrial BMPs for all employees. Storm

water quality management and required commercial/industrial BMPs shall be integrated with any other existing employee training programs. In addition to listed BMPs, training shall also address the proper use, handling, storage and disposal of products, spill prevention and clean up, and any other items related to the specific site or use.

- Record of inspection, maintenance and training activities – Indicate that records of inspections, maintenance, and training shall be kept on site and made available for review by city and/or state officials upon request. An inspection of the site will be conducted by the city annually, or more frequently as may be deemed necessary.
- Any BMPs required for a specific site or use – Indicate any BMPs required specifically for the specific site or for a specific use such as fuel storage, vehicle fueling, vehicle maintenance and repair, hazardous waste management, outdoor storage of raw materials etc. that may occur on site.

Part 5: Development Review

The following standards apply to all new development or redevelopment projects.

5.1 Development Plan Set Submittal Requirements

5.1.1 Electronic Plan Submittal

Plans may be submitted electronically through the Planning and Zoning Division. Plans should be submitted as pdf files formatted to print to scale on a standard paper size.

5.1.2 Subdivisions

5.1.2.1 Subdivision Plan Elements

Engineering drawings should include the following:

- Cover sheet with vicinity map and a sheet index.
- Subdivision plat. (Subdivision plans must be approved prior to final approval of plat).
- Site Plan
- Street Plan
    - Show existing and proposed improvements on opposite and adjacent frontages
    - Show plan and profile of streets, including sidewalk, curb and gutter
    - Include TBC and Centerline stations and elevations to be shown at 50' intervals and at all PC, PT, PRC, PVI, BVC and EVC locations on plan view
    - Vertical curve stations and elevations to be shown at 25' intervals
    - Pavement section shall be per soils report recommendations or West Valley City standards, whichever is greater
    - Include storm drain improvements in both plan and profile views. Label size, type, slope and length of each segment (minimum 15" RCP required within public right-of-way)
    - Show all monuments to be installed, include monument to monument bearings and distances
    - Include north arrow, scale and legend (horizontal scale to be 1"=20').
    - Reference plans to specific APWA standard plans and WVC standards
- Grading and drainage plan with drainage calculations (see Storm Water Design Requirements).
    - Subdivision grading plans shall conform to West Valley City Code 7-2-121, and 7-14-105.
    - Final grading of individual lots shall be performed in such a way that excess water shall be contained entirely on the site or directed to an improved street or directed to an approved drainage inlet, drainage channel or drainage easement. Excess water shall not be allowed to drain onto adjacent private property unless approved as part of an overall system, as reflected in the subdivision approval or otherwise.
    - Depressed areas on individual lots are permanent designed features to prohibit movement of water from one lot to the next and may not be altered. Individual lot grading and Drainage Plans may be required at building permit stage in areas with steep topography, and higher probability of channelization of runoff between lots. The

depressed areas shall be designed to capture a 10 year, 1 hour storm event. Only directly connected impervious areas need to be modeled to evaluate required storage. Infiltration rates, determined from a percolation test, may be used in retention volume calculations.
    - Show existing and finish grade contours (clearly differentiated) at minimum one foot intervals
    - Identify County benchmark location and elevation
    - Label size, type, slope and length of each gravity flow pipe. All storm drain piping within the public right-of-way to be minimum 15" RCP
    - Label high water contour of detention areas
    - Show all irrigation and drainage ditches and proposed piping (Written approval from water users to pipe or abandon any ditches on property)
- Utilities Drawing
- A Storm Water Pollution Prevention Plans (SWPPP) is required for developments larger than one acre or that are part of a larger common plan of development (i.e., lots in a subdivision). Developments of area less than one acre will still be required to take appropriate measures to prevent sediment from entering the storm drain system and to prevent the tracking of mud and debris onto city streets. Developments of less than one acre will be required to prepare an erosion control plan. Refer the Drainage Standards in this document in preparing a SWPPP.
- Applicable notes and details

Upon plan approval, a bond will be calculated and a list of applicable fees will be provided for the developer (see bonding).

Submit a street lighting plan. See the Modified APWA Specification Section 26 56 19 – Roadway Lighting for details.

5.1.2.2 Subdivision Drainage Design Submittal

Submit a Drainage Analysis as addressed in the Drainage Design section of these standards.

5.1.3 Commercial, Industrial and Multi-Family Plan Set Requirements

Engineering drawings should include the following:

- A cover sheet with vicinity map and a sheet index.
- A site plan
    - Show existing off-site improvements on opposite and adjacent frontages, including drive approaches, existing utilities, storm drain, sewer, water, and proposed improvements
    - Dimension site plans (i.e. drive approach widths, throat length, setbacks, etc.)
    - Include north arrow, scale, vicinity map and legend
    - Show plan and profile and/or spot elevations of sidewalk, curb and gutter
    - Indicate right-of-way dedication, if necessary, to match major street plan. Include road centerline information (ties to existing monuments)
    - Reference plans to specific APWA Standard Plans and Specifications and WVC standards

- Grading and Drainage Plan.
    - Site grading must conform to West Valley City Code 7-2-121 relating to grade changes.
    - Submit an overall grading and drainage plan for the entire site. Include final and existing contours at no greater than 1 foot intervals. Identify County benchmark and elevation.
    - On drainage plan, reference Drainage Analysis completed for the project.
    - High water contour required in detention areas. Identify orifice plate location, size and elevation. Clearly identify any LID Capture Volume storage areas.
    - Provide oil/water separator for all parking areas or other approved BMP.
    - Label size, type, slope and length of each gravity flow pipe.
    - Label invert, grate and/or lid elevations of storm drain inlets and boxes
    - Show all irrigation and drainage ditches and proposed piping (Written approval from water users is required to pipe or abandon any ditches on property)

- Plan and Profile drawings of any street improvements in new or along existing streets (see Roadway Design).
- Utility Plans.
- A Storm Water Pollution Prevention Plan (SWPPP) for developments exceeding one acre and for developments less than one acre and part of a larger common plan of development. Developments of area less than one acre will still be required to take appropriate measures to prevent sediment from entering the storm drain system and to prevent the tracking of mud and debris onto city streets. Refer to the Drainage Standards in this document in preparing a SWPPP.A Post-Construction (Long Term) Storm Water Management Plan is required. Refer to Drainage Standards in this document in preparing a Storm Water Management Plan.

  Upon plan approval, a bond will be required to guarantee the construction of certain public improvements and appurtenances. The plan review staff will determine a bond amount and a list of applicable fees will be provided to the developer (see section on Bonding for Public Improvements in these standards).

5.1.3.1 Commercial, Industrial and Multi-Family Drainage Design Submittal

Submit a Drainage Analysis containing all pertinent data and calculations as discussed in the Drainage Design section of these standards.

Submit a drainage construction plan set showing pipes and drainage structures to be constructed together with all information necessary to construct the drainage system.

See section on Drainage Design Concepts in this document for drainage standards.

5.2 Subdivision Platting Requirements

This section contains information required on a Preliminary Plat, Final Plat or Subdivision by Metes and Bounds.

(Note: Per West Valley City Code; 1-2-110, Consolidated Fee Schedule; Plan review - $50 (Fees will be assessed for plan reviews in which the developer or engineer has not made appropriate modifications requested in the previous review.)

5.2.1 Preliminary Plat Requirements

The following items should be addressed on a preliminary plat:

- A vicinity sketch at a scale of 1000 feet or more to the inch. The vicinity sketch shall show the street and tract lines and names and numbers of all existing subdivisions, and the outline of parcels of land adjacent to the proposed subdivision.
- The date, North point, written and graphic scales (North to top or right of sheet).
- A legal description to define the location and boundaries of the proposed subdivision.
- The location, names and existing widths of adjacent streets.
- The contours, at one-foot intervals, for predominant ground slopes within the subdivision between level and five percent, and two-foot contours for predominant ground slopes within the subdivision over five percent. Such contours shall be based on Salt Lake County datum. The closest City or County survey monument shall be used and its elevation called out on the map. Survey monument information shall be obtained from the Salt Lake County Surveyor.
- A grading and drainage plan showing the proposed grading of the subdivision. Contours should be consistent with West Valley City Code 7-19-603(2)(j).
- Preliminary indication of needed storm drainage facilities with location, size and outlets of the drainage system. Preliminary Drainage calculations to include flows from offsite, flows to be generated onsite, and flows to be discharged to existing storm drain systems.
- The boundaries of areas subject to flooding or storm water overflow, as determined by the Public Works Department, and the location, width and direction of flow of all watercourses, including all existing and proposed irrigation and natural runoff channels and courses.
- The locations, proposed names, widths and a typical cross section of curbs, gutters, sidewalks and other improvements of the proposed street and access easements.
- Street names to be approved by the Salt Lake County Addressing Division.
- Preliminary location and size of sanitary sewers, water mains and any other public or private utility.
- The dimensions and locations of all existing or proposed dedications, easements and deed restrictions. These shall include easements for drainage, sewerage and public utilities.
- The location of any of the foregoing improvements which may be required to be constructed beyond the boundaries of the subdivision.
- The name of the subdivision. Such subdivision names shall not duplicate or nearly duplicate the name of any subdivision in the City or in the incorporated and unincorporated area of Salt Lake County.

- Layout of all lots, including the average and minimum lot size, lot divisions, building setback lines and consecutive numbering.
- The name and address of the subdivider and his or her agent, if applicable.
- The name and address of the person, firm or organization preparing the preliminary plat.
- The names and numbers of adjacent subdivisions and the names of owners of adjacent unplatted land.
- The location of all isolated trees worthy of preservation with a trunk diameter of four inches or greater, within the boundaries of the subdivision, and the outlines of groves or orchards.
- The existing use or uses of the property and the outline of any existing buildings and their locations in relation to existing or proposed street and lot lines drawn to scale.
- The location and description of all existing fencing.
- A statement of the present zoning and proposed use of the property, as well as proposed zoning changes, whether immediate or future.
- Location and dimensions of proposed sites to be dedicated or reserved for open space or recreational use.
- Any proposed lands to be reserved in private ownership for community use.
- The boundaries of phases, along with the estimated construction schedule for each phase.
- The words "Preliminary Plat - Not to be Recorded" shall be shown on the plat.

5.2.2 Final Plat

- Submit copy or Record of Survey Map used to determine existing or proposed boundaries of the proposed subdivision.
- Submit closure sheets for all lots, parcel, streets and exterior boundary of proposed subdivision.

5.2.2.1 Plat Information Requirements

The following information is to be shown on a final plat:

- Title shall include approved name and phase number of subdivision, 1/4 Section, Section, Township and Range followed by words "West Valley City." Subdivision name is to be distinct from any name on a plat recorded in the office of the Salt Lake County Recorder.
- Plat to be signed, sealed, and certified by a Professional Land Surveyor (PLS). PLS stamp, signature and date required on all plats submitted for review.
- Plat plotted on a 24"x 36" sheet(s) with a north arrow, and both written & graphic scales.
- Legend required for all symbols and line types depicted.
- Exterior boundary to agree with existing or proposed division lines as depicted on filed or approved Record of Survey ROS Map(s).
- Exterior boundary clearly defined (heavy line) with Point of Beginning (POB), lines, and curves labeled.
- Boundary tied spatially to at least two existing (found) clearly described PLSS monuments or other monuments of record. Basis of bearings (B of B) identified between two PLSS monuments or other found monuments of record.

- Written legal description to agree with exterior boundary labels, ties to monuments, and Basis of Bearing.
- Total acres shown and total number of lots noted.
- Show recording information for adjoining plats of record and to vesting documents for adjoining parcels.
- Plat boundary checked spatially for harmony with legal descriptions for adjoining parcels and plats.
- Lot distances equal boundary and street distances.
- Vicinity map required.
- Monuments shown at intersections, P.C. and P.T. or at P.I. if within roadway. Monument to monument, and monument to boundary bearings and distances to be labeled.
- Right-of-Way widths to be labeled at all PC & PT locations.
- Show centerlines and widths of all existing streets (within 200 feet of subdivision boundary) clearly defined with line, curve, and offset labels, also identify and show dimensions to any existing (found) street monuments.
- Proper approach angle on streets; intersections with major streets must dedicate right-of-way to chord.
- Existing easements are to be depicted graphically on the plat along with references to their instrument(s) of record or to ROS map(s) asserting any observed evidence of possible unrecorded, statutory, or prescriptive easements, said easements are to be clearly defined with line and curve labels, centerline offsets, and dimensions to future ownership interest lines.
- Public utility easements to be shown as required.
- Shown any other easements as may be required. Include specific conveyance language (to whom it is in favor) and declared purpose for each particular easement type created by the plat.
- Streets, lots, parcels and easements to be adequately labeled with necessary line, curve, and offset dimensions.
- Subdivision boundary, lots, parcels and streets to close mathematically.
- Postal easements shown (streets without parkstrips).
- Street names shown and approved (non-linear streets to have alpha name as well as coordinates). Names required for non-linear streets (may not duplicate existing street names within the County). Street names to be approved by the Salt Lake County Addressing Division.
- Lot and street addresses required.

5.2.2.2 Required Notes on a Final Plat

When applicable, the following notes should be included on the plat.

- A soils report in accordance with Section 7-19-604 of the West Valley City Ordinances has been prepared. Include name of geotechnical engineer or firm, report #, and date.
- Note indicating historical depth of high water table and elevation of lowest floor slab (min 3' above wt). Include table showing finished floor elevation for each lot referenced to finished TBC (based upon soils report findings).

- Identify lots where easements for special drainage facilities will be required.
- 5/8" x 24" rebar with survey cap to be placed at all lot corners (Cap shall include the business name or “P.L.S.” followed by the license number of the surveyor in charge). Off-set pins to be placed in the back of the curb, in lieu of rebar and cap at front corners.
- Building permits will not be issued for any structure until 1) asphalt paving is installed; and 2) fire hydrants are installed, approved & charged.
- This area is adjacent to Agriculturally Zoned property and is subject to the normal, everyday sounds, odors, and all other aspects associated with an agricultural lifestyle (If adjacent to A zones).

5.2.2.3 Additional Requirements

Letters from all utility companies may be required, indicating their review and approval of plat.

5.2.3 Subdivision by Metes and Bounds

Requirements for Subdivision by Metes and Bounds will follow those plat (map) requirements per Utah State law for boundary surveys as outlined in West Valley City Code 17-23-17 (3) & (4). The following should be addressed on a Subdivision by Metes and Bounds:

5.2.3.1 Plat Requirements

Utah State Code as amended, Section 17-23-17(3)

- The location of survey by quarter section and township and range;
- The date of survey;
- The scale of drawing and; north point
- The distance and course of all lines traced or established, giving the basis of bearing and the distance and course to two or more section corners or quarter corners, including township and range, or to identified monuments within a recorded subdivision;
- All measured bearings, angles, and distances separately indicated from those of record;
- A written boundary description of property surveyed;
- All monuments set and their relation to older monuments found;
- A detailed description of monuments found and monuments set, indicated separately;
- The surveyor’s seal or stamp; (seal requirements see R156-22-701 (1) (c) states “Each seal shall be signed and dated with the signature and date appearing across the face of each seal imprint.”)
- The surveyor’s business name and address

5.2.3.2 Narrative Requirements

Utah State Code as amended Section 17-23-17(4)

- The map shall contain a written narrative that explains and identifies;
    - The purpose of the survey;
    - The basis on which the lines were established; and

- The found monuments and deed elements that controlled the established or reestablished lines

5.2.3.3 Additional West Valley City Requirements

- Vicinity map
- Checks with ownership plat; adjoining ownership shown
- Addresses shown
- Lot area shown; total acres shown
- Existing easements and rights-of-way of record
- Final approval signature block included
- Print on 24" x 36" sheet

5.2.4 Survey Monuments

Survey monuments to be placed in accordance with West Valley City Code 7-19-909

5.2.4.1 Disturbance of existing Section Corner, Quarter Corner or Street Monuments

Prior to any disturbance or removal of any existing survey monuments, the office of the Salt Lake County Surveyor must be notified and a Monument Permit must be obtained.

In accordance with Utah State Code as amended, 17-23-14, a Monument Permit is issued by the County Surveyor or Designee prior to disturbing, damaging, removing, moving or covering any public survey monument. If a permit is not issued, a person may be guilty of a Class C misdemeanor and is additionally responsible for assessed penalties and fees.

5.2.4.2 Street monuments in conjunction with new subdivisions or road dedication plats

Street monuments are required to be set at street centerline intersections and at radius points of cul-de-sacs, and inter-visibly along street rights-of-way corridors on curve PIs (if within asphalt), PCs, PTs, or Midpoints.

Subdivision monuments shall be installed by the subdivider's land surveyor at such points designated on the final plat as approved by the City Engineer. Monuments must be placed prior to the release of the improvement bonds. All monuments shall be certified by the subdivider's land surveyor as accurate.

5.2.4.2.1 Monument Permit required for new monuments

It is unlawful for any person to install survey monuments having a spatial relationship with any section or quarter section corner without first obtaining from the Salt Lake County Surveyor's Office a monument permit for such installation. All survey monuments installed shall be in accordance with the permit issued and shall be subject to inspection and approval by the Salt Lake County Surveyor's Office.

5.2.4.2.2 Lot and property corners to be monumented

Rebar five-eighths inch in diameter and 24 inches in length, with surveyor cap, shall be located in the ground, flush at finished grade and at all lot corners. Cap shall include the business name or “P.L.S.” followed by the license number of the surveyor in charge. Off-set pins to be placed in the back of the curb where applicable, in lieu of rebar and cap at front corners.

5.3 Bonding for Public Improvements

In accordance with West Valley City Code 7-19-618, a subdivider is required to either complete all improvements, or enter into a performance bond agreement with the city prior to plat recordation to ensure the completion of all required public improvements. Improvements installed prior to plat recording shall be bonded at a rate of 10 percent for the duration of the warranty period, and must be inspected during construction by West Valley City Engineering staff.

5.3.1 Bonding Procedures

Performance Bond agreements shall be entered into in accordance with West Valley City Code 7-19-618.

5.3.1.1 Acceptable Bond Agreement Types

- With a surety company licensed to do business in the State of Utah
- An irrevocable letter of credit with a financial institution federally or state insured
- Cash or a cashier's check made payable only to the city

5.3.1.2 Bond Time Period Requirements

Per West Valley City Code; Completion of the improvements within a period of time not to exceed two years from the date the agreement is executed.

The time period for the completion of the required public improvements may be extended in the following manner:

- Upon approval of the City Manager, the time period may be extended an additional two years from the expiration date of the original bond agreement.
- Said approval shall be in a form approved by the City Attorney's Office and in compliance with all provisions of West Valley City Code.
- Any further extension shall be by approval of the City Council.

Per Utah State Code as amended, 10-9a-604.5; the warranty period for subdivision or other development activity improvements may extend up to one year after final acceptance of the improvement or warranty work. In some cases, the city may require two years of warranty after final acceptance of the improvement or warranty work if the city determines for good cause that a lesser period would be inadequate to protect the public health, safety, and welfare and had substantial evidence of prior poor performance of the applicant, unstable soil conditions within the subdivision or development area, or extreme fluctuations in climatic conditions that would render impracticable the discovery of substandard or defective performance within a one-year period.

5.4 Floodplain Development Requirements

5.4.1 Flood Plain Development

5.4.1.1 Flood Plain Development Permit

In accordance with and to ensure compliance to West Valley City Code, Title 25 (Flood Damage Prevention), a *Development Permit* is required within *Special Flood Hazard Areas* as defined on the FEMA *Flood Insurance Rate Maps* (FIRM).

5.4.1.1.1 Flood Plain Development Permit Procedures

Flood Plain Development Permit Procedures are defined in West Valley City Code 25-4-103.

A Flood Plain Development Permit application is available in the office of the Engineering Division. Contact the engineering development personnel for more information.

Part 6: General Construction Requirements

The following standards apply to construction activities within the public right of way.

6.1 Construction in the Public Right of Way

6.1.1 Excavation Permit

6.1.1.1 An Excavation Permit is Required

Any excavation work in a West Valley City Right of Way requires an excavation permit. Exceptions in emergency cases are noted in West Valley City Code 19-2-301.

6.1.1.2 General Permit Requirements

6.1.1.2.1 Insurance and Completion Bond

Insurance requirements shall be per West Valley City Code 19-2-304

A completion bond is required in the amount specified in West Valley City Code 19-2-305. A minimum amount of $10,000 is required, but a larger bond may be required based upon the extent of the construction.

6.1.1.2.2 Contractor's License

A copy of the contractor's license must be submitted to receive an excavation permit.

6.1.1.2.3 Traffic Control Plan

A traffic control plan must be submitted and approved for all work in the public right of way prior to issuance of an excavation permit.

6.1.1.2.4 Proposed Work Plan

A plan showing the proposed work must be submitted with the permit application.

6.1.2 Roadway Excavation Restoration Standards

6.1.2.1 Backfill or Road Grade Fill Material

Backfill material or material used to build fill on a roadway grade shall meet the requirements for *Granular Borrow*, in Section 31 05 13 of the Utah APWA Standard Specifications with a maximum particle size of 3-inches. Exceptions to be approved by the City Engineer.

6.1.2.2 Compaction Requirements

Trench backfill shall be compacted to 95% of the Modified Proctor (ASTM D1557)

Backfill acceptance shall be per APWA Section 33 05 20, Part 1.9

6.1.2.3 Asphalt Restoration Standard

Trenches in asphalt pavement shall be restored per APWA Standard Plan 255 – Asphalt Concrete T-Patch

Cuts with a profile deviation of 1/4 inch or greater in a 10-foot area will require a profile grind to eliminate a bump, or re-mill and pave the cut area to fill depressions with a minimum of 2-inches of newly placed asphalt.

6.1.2.4 Concrete Pavement Restoration Standard

Concrete pavement shall be removed and replaced in full slabs only. APWA Plan 256 does not apply. The Engineering Division will define restoration requirements for each excavation. Restoration plans must be approved by the City Engineer prior to the issuance of a permit.

6.1.2.5 Exploratory Pothole Restoration Standard

Exploratory potholes must be backfilled using an approved Flowable Fill (APWA 31 05 15, Part 2.1).

Removed pavement cores may be replaced as the pavement restoration material provided that the core is in good condition and that it is secured and sealed with epoxy or other approved material.

The limits of repair for openings greater than eight (8) inches in diameter are the same as any asphalt repair done in West Valley City right-of-way. The minimum overcut patch required on exploratory potholes is 3-feet by 3-feet. Cold patch asphalt mix is not allowed as a permanent restoration and must be maintained by the contractor until the permanent patch is installed.

6.1.3 Work Zone Traffic Control Requirements

All traffic control placed on West Valley City roads must conform to current MUTCD Standards. Traffic control plans must be signed and sealed by a Professional Engineer licensed in the State of Utah or be a certified Traffic Control Supervisor. Traffic control must be placed and maintained by a certified traffic control maintainer.

6.1.4 Pavement Cut Moratorium and Special Restoration Standard

West Valley City enforces a pavement cut moratorium on all newly paved or constructed roadways.

6.1.4.1 Pavement Cut Moratorium

1. Overlaid Streets
    a. Overlaid streets shall not be cut for one (1) year from the time the street was overlaid. Roads cut on emergency basis must be restored with Special Restoration Standards.
2. New or Reconstructed Streets
    a. New Streets shall not be cut for two (2) years from the time of construction. Any new or reconstructed street cut within five (5) years of construction must be restored with the Special Restoration Standard.
3. Slurry Sealed Streets
    a. May be cut anytime. If cut within one year of slurry seal, must be restored with Special Restoration Standard.
4. Chip Sealed Streets
    a. May be cut anytime. If cut within one year of chip seal, must be restored with Special Restoration Standard.

6.1.4.2 Special Restoration Standard

6.1.4.2.1 Overlaid Streets

Asphalt T-Patches per APWA Plan 255 are required on all roadway excavations.

Cuts with a noticeable bump, or with profile deviation of 1/8-inch or greater in a 10-foot area will require a profile grind to eliminate a bump, or re-mill and pave the cut area to fill depressions with a minimum of 2-inches of newly placed asphalt.

6.1.4.2.2 New or Reconstructed Streets

Asphalt T-Patches per APWA Plan 255 are required on all roadway excavations.

Excavations made into newly constructed or reconstructed pavements must be restored with a modification to APWA Plan 255 which will require rotomilling an additional 10-feet on either side of transverse cuts (measured from the outside edges of the T-Patch), 2-inches deep and overlaying the entire excavation and rotomilled area with a 2-inch overlay. Final driving surface over road cuts with noticeable bump or with a profile deviation of 1/8 inch or greater over a 10-foot area will require a profile grind to eliminate a bump, or re-mill and pave the entire cut area to fill depressions with a minimum of 2-inches of newly placed asphalt. Restoration on any excavation made into a travel lane must extend through the entire lane width, or to the lip of curb. Any settlement within the warranty period will require rotomilling and repaving.

Special restoration on new or reconstructed streets also requires a crack seal around the perimeter of the cut per APWA 32 01 17.

6.1.4.2.3 Slurry Sealed and Chip Sealed Streets

Asphalt T-Patches per APWA Plan 255 are required on all roadway excavations.

Special restoration requires a crack seal around the perimeter of the cut per APWA 32 01 17.

6.2 Pipe Zone Requirements

6.2.1 Trench Safety

Excavating is one of the most hazardous construction operations. Trench safety is the highest priority to West Valley City in any excavation. The contractor is responsible for the safety of the construction site; however West Valley City will issue a Stop Work Order when unsafe conditions are observed. When required by OSHA, protective systems must be put into place to protect workers, either by benching, sloping, shoring or shielding. OSHA access and egress standards must be met by the contractor.

Contractor is responsible to provide safe access into trenches for inspectors to perform backfill density measurement or other inspection purposes.

6.2.2 Compaction Requirements in Water and Sewer and other Utility Trenches

Bedding and pipe zone material placed may be in accordance with utility owner requirements. If Sewer Rock is used as pipe bedding or pipe zone backfill, a separation geotextile fabric (APWA 31 05 19) must be used.

Trench Backfill to be performed per APWA Plan 381. Backfill materials must conform to the specification for Granular Borrow with a maximum particle size of 3-inches or Granular Backfill Borrow per APWA 31 05 13.

Any deviations from this standard must be approved by the City Engineer, or a Section Manager in the Engineering Division.

Compaction acceptance will be per APWA 33 05 20, Part 1.9

Execution of backfill operations will be per APWA 33 05 20, Part 3

Pea gravel is not allowed in any utility trench in the public right of way.

6.2.3 Compaction Requirements in Storm Drain Trenches

Pipe bedding and pipe zone backfill to be per APWA Plan 382. On approval of the Engineer, No. 3 or No. 4 fractured Sewer Rock (APWA 31 05 13) may be used for bedding and pipe zone backfill material provided that a separation geotextile fabric (APWA 31 05 19) is used.

Trench Backfill to be performed per APWA Plan 381. Backfill materials must conform to the specification for Granular Borrow with a maximum particle size of 3-inches or Granular Backfill Borrow per APWA 31 05 13.

Compaction acceptance will be per APWA 33 05 20, Part 1.9

Execution of backfill operations will be per APWA 33 05 20, Part 3

Pea gravel is not allowed in any utility trench in the public right of way.

6.3 Temporary Surfacing Requirements

6.3.1 Trench Plate Requirements

Trench plates may be placed directly on top of the asphalt when the plate will be in place for 24 hours or less. Surface trench plates must be placed with mastic and secured to the pavement by some mechanical means. Where necessary, plates should be welded together to avoid movement.

Hot or cold mix asphalt must be placed around the perimeter surface of the plate when placed on top of the asphalt surface.

NEVER overcut for a T-Patch when trench plates will be used. Sawcut only after the trench is backfilled prior to asphalt placement.

Any trench plate to be left in place longer than 24 hours must be milled into the asphalt so the top of the plate is flush with the pavement surface.

Use sign W8-24 “Steel Plate Ahead” when steel plates are placed on the roadway. Place sign WI-1 “Bump” with a W16-7P diagonal downward pointing arrow adjacent to the steel plate.

Between the months of November and March, trench plates are not to be used but must be recessed into the pavement if they are necessary.

6.3.2 Temporary Asphalt

Temporary asphalt surfaces are required on any roadway with a right of way width of 66-feet or greater by the end of each work day (unless trench plates are to be used). The temporary asphalt must be maintained by the permit holder until the permanent surface is completed and accepted.

Temporary asphalt or trench plates may be required on minor roads at the discretion of the West Valley City Permits Officer, especially if a longer period of time will pass before final pavement placement.

In the event that trenches are allowed to remain unpaved for a period of time during construction, unpaved trenches must be monitored and maintained regularly for safety and dust control purposes. Citations will be issued for unsafe or neglected trenches.

Any pavement placed outside of acceptable paving temperatures and density requirements will be considered temporary pavement.

6.4 Asphalt Pavement Requirements

6.4.1 Asphalt Mix Requirements

6.4.1.1 Minor Streets and Minor Collectors

Gradation - ½ Inch Dense Mix (DM-1/2 per APWA Section 32 12 05 (amended))

Binder – PG58-28

APWA Section 32 12 05 Mix Design Criteria in Table 5 – **Medium Traffic Classification**

RAP content shall not exceed 15 percent by weight.

6.4.1.2 Major Arterial, Minor Arterial and Collector

Mix properties – Superpave Mix Design per APWA Section 32 12 05 (amended), Part 2.4, D.

12.5 mm 75 Gyration Superpave Design

$N_{initial}$ /%of G_{mm}	N_{design}/%of G_{mm}	N_{max}/%of G_{mm}
7/>=90.5	75/96.5	115/<=98

Binder – PG64-28

RAP/ROSP content shall not exceed 15 percent by weight.

6.4.1.3 Small Quantity – Asphalt Patch Mix Design

Other mix designs will be considered for small quantity asphalt patches.

6.4.2 Asphalt Placement Standard

6.4.2.1 Weather

Paving will not be allowed unless the air temperature is 45 degrees F, and rising. Cease paving if air temperature falls below 50 degrees F.

Do not pave if the weather is wet. Cease paving if precipitation begins.

6.4.2.2 Density

Asphalt is to be placed in accordance with APWA Section 32 12 16.13, with density acceptance per 1.7 E, excepting Table 1, Compaction Pay Factors.

On all new construction, the following standard applies:

Density, in percent relative to ASTM D 2041(theoretical maximum specific gravity, Rice); average asphalt density shall be no less than 93.5% and no greater than 96%. Any pavement placed with an average density outside of these limits must be removed and replaced at no cost to the City. Pavements placed with any single density test below 90 percent must be removed and replaced at no cost to the City.

6.4.2.3 Thickness

Any asphalt placed with a thickness less than the specified thickness must be removed and replaced at no cost to the City. Other remedies may be considered at the discretion of the City Engineer.

6.4.2.4 Tack Coat

Tack coat shall be applied as specified in APWA Section 32 12 13.13 with the following exceptions:

Concentrate shall be diluted at a rate of 2:1 (2 parts concentrate to 1 part water)

Coverage shall be 95% or better.

Emulsions shall be applied at a rate of 0.06 to 0.08 gallons per square yard on smooth surfaces, 0.08 to 0.1 gallons per square yard on rotomilled surfaces.

6.4.2.5 Quality Control

The contractor is required to provide field quality control testing to ensure the specified in-place asphalt density is met. West Valley City will perform acceptance testing independent of the Contractor's field quality control testing.

6.5 Concrete Pavement Standards

6.5.1 Concrete Pavement Restoration Standards

Concrete pavement must be replaced in full panels (this is a deviation from the APWA Standard Drawings). The existing depth must be matched. Tie new panels to existing panels as shown in APWA Plan 256. Dowels and tie-bars must be replaced matching the existing placement.

Some concrete pavement replacement may be required to be completed using pre-cast concrete paving slabs. This will be required when impacts to the traveling public from traditional restoration methods will be more significant. The determination to require pre-cast concrete paving slabs will be reviewed and approved by the City Engineer. When pre-cast concrete paving slabs are required, construction will conform to UDOT Standards for pre-cast concrete paving slabs.

6.6 Concrete Placement Standard

6.6.1 Placement Weather

6.6.1.1 Cold Weather Concrete Placement

If air temperature is predicted to fall below 32 degrees F. within 14 days of placement, follow procedures as shown in APWA 03 30 10, 3.4C, and in ACI 306.

6.6.1.2 Hot Weather Concrete Placement

If the rate of evaporation exceeds 0.2 lb./ft^2/hr, implement practices shown in ACI 305.

American Concrete Pavement Association (ACPA) mobile app will be used by WVC Inspectors to determine evaporation rate.

6.7 Geotechnical Considerations

6.7.1 Soil Stabilization

6.7.1.1 Soft Spot Repair in Sub-Grade

Contractors should propose solutions for soft spot repair techniques and have proposals approved by the City Engineer or Engineering Division Section Manager. Minimum measures should include excavation of soft material, placement of a stabilization fabric and backfill using a granular material with larger crushed aggregate.

6.8 Other Construction Considerations

6.8.1 Collars on Utility Covers

Concrete collars on utility covers and survey monuments are required in most circumstances in asphalt paving. Collars are to be built per APWA Plan 362, 413, or 574. In a deviation from the standard drawings, concrete collars are to be recessed below the pavement from 1/8-inch to a maximum of 1/4-inch. Any concrete collar on a utility cover recessed above or below the allowable tolerances must be replaced.

Concrete collars must be protected during concrete curing periods with steel plates. Plates are to be secured and monitored for movement. Damaged concrete will be replaced by the contractor.

Utility covers in concrete pavement must be coordinated with the Engineering Division. Utility covers must be considered in joint layout plan.

6.8.2 Survey Monuments

Survey monuments are not to be disturbed without having obtained a Monument Preservation Permit from the Salt Lake County Surveyor's Office.

6.8.3 Patterned Concrete Park Strip

When patterned concrete park strip is to be placed, construct per APWA Plan 232. Unless specified otherwise, pattern and color shall be as follows:

1. Pattern – "Ashlar Slate" or approved equal.
2. Color – Two-part color compound; base color with color release.
    a. Base Color shall be:
        i. Yosemite Brown, Per Davis Colors
        ii. Sahara No. 242, Solomon Liquid Color
        iii. or approved equal
    b. Color release shall be Dark Gray (Per Brickform Standard Color Selector Brochure (or equal approved by West Valley City Engineering Division).

6.8.4 Detectable Warning Surface on Pedestrian Access Ramps

The detectable warning surface panels on pedestrian access ramps are to be yellow. Exceptions must be approved by the City Engineer.

Part 7: Appendix

7.1 Storm Water Release Rate Map

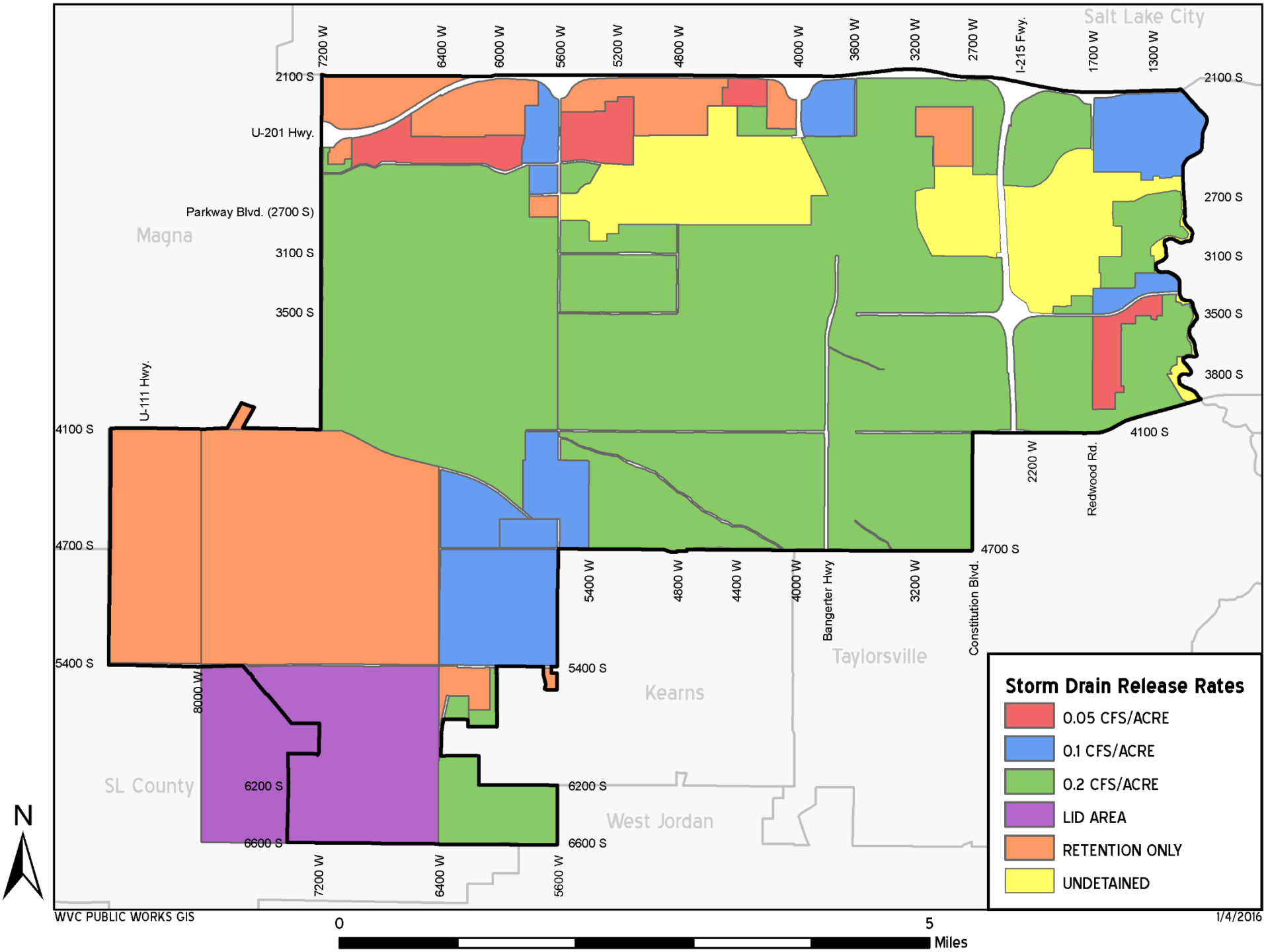
7.2 West Valley City Standard Drawings

Available for download on the West Valley City Engineering Division webpage.

7.3 West Valley City Special Provisions (Modifications to the APWA Standard Specifications)

Available for download on the West Valley City Engineering Division webpage.

West Valley City Storm Drain Release Rates



Item: _____
Fiscal Impact: $52,276
Funding Source: Storm Water Utility/Flood Impact Fees
Account #: xx-xxxx-xxxxx-xxxxx-0000

Budget Opening Required: Yes

ISSUE:

West Valley City Reimbursement Agreement

SYNOPSIS:

A reimbursement agreement between West Valley City and Ensign Development, Inc. for storm drain improvements associated with the Thomasville Manor Subdivision.

BACKGROUND:

The development of the Thomasville Manor Subdivision on 3500 South at approximately 7000 West, required the piping of existing ditches which are considered to be part of an Intermediate Drainage System Facility which is eligible for reimbursement from the city under Title 18.

The project necessitated the construction of nearly 1400 feet of large diameter pipe to accommodate substantial flows coming from the areas south of 3500 South and west of the development. This agreement allows the city to reimburse Ensign Development for the construction of these drainage facilities.

RECOMMENDATION:

Execute the Reimbursement Agreement with Ensign Development

SUBMITTED BY:

Daniel Johnson, City Engineer

WEST VALLEY CITY, UTAH

RESOLUTION NO. _____

A RESOLUTION AUTHORIZING THE EXECUTION OF AN AGREEMENT BETWEEN WEST VALLEY CITY AND ENSIGN DEVELOPMENT, INC. TO REIMBURSE ENSIGN DEVELOPMENT FOR CERTAIN STORMWATER FACILITIES EXPENSES.

WHEREAS, Ensign Development, Inc. ("Ensign") is building the Thomasville Manor Subdivision at approximately 3500 South 7040 West; and

WHEREAS, in conjunction with that project, Ensign is providing certain stormwater improvements in excess of Ensign's obligations in order to facilitate the development of the project; and

WHEREAS, the City desires to reimburse Ensign for certain expenses in excess of Ensign's obligations; and

WHEREAS, an Agreement has been prepared for execution by and between the City and Ensign. This Agreement, which is attached hereto, and entitled "West Valley City Reimbursement Agreement," sets forth the rights, duties, and obligations of each of the parties thereto; and

WHEREAS, the City Council of West Valley City, Utah, does hereby determine that it is in the best interest of the health, safety, and welfare of the citizens of West Valley City to authorize the execution of the Agreement between the City and Ensign.

NOW, THEREFORE, BE IT RESOLVED by the City Council of West Valley City, Utah, that the document entitled "West Valley City Reimbursement Agreement" is hereby approved in substantially the form attached, and that the Mayor is hereby authorized to execute said Agreement for and on behalf of West Valley City subject to approval of the final form of the Agreement by the City Manager and the City Attorney's Office.

PASSED, APPROVED, and **MADE EFFECTIVE** this _____ day of _____, 2016.

WEST VALLEY CITY

_____
MAYOR

ATTEST:

_____
CITY RECORDER

WEST VALLEY CITY
REIMBURSEMENT AGREEMENT

THIS REIMBURSEMENT AGREEMENT is entered into this _____ day of _____, 201__, by and between West Valley City, a Utah Municipal Corporation (herein the "City"), and Ensign Development, Inc., a Utah corporation, (herein the "Developer") (collectively, the "Parties").

W I T N E S S E T H :

WHEREAS, the Developer is building a project commonly known as the Thomasville Manor Subdivision (herein the "Project"), which is located at approximately 3500 South 7040 West in West Valley City, Utah; and

WHEREAS, the Developer is providing improvements to the City's storm water drainage system facilities located within and adjacent to the boundaries of the Project; and

WHEREAS, the cost of constructing said improvements to the storm water drainage system has exceeded the Developer's storm water drainage obligations for the project as required by City ordinances and State law; and

WHEREAS, notwithstanding the fact that the cost of constructing the improvements has exceeded the Developer's storm water drainage impact obligation, the Developer was willing to finance and construct the additional improvements in order to facilitate the development of the Project; and

WHEREAS, §8-1-111 and §18-5-201 of the West Valley City Municipal Code provide that, subject to certain terms and conditions, the City will reimburse the Developer for the cost of constructing improvements to the City's storm water drainage system that are included in the Capital Facilities Plan for Drainage Impact Fees, to the extent that those costs exceed the cost the Developer is obligated to expend under City ordinances and State law for storm water drainage improvements for the Project; and

WHEREAS, the Parties desire to enter into an agreement (herein the "Agreement") by which the City will reimburse the Developer for certain improvements to the major storm drainage system facilities that are in excess of the Developer's obligations;

NOW, THEREFORE, for and in consideration of the mutual covenants made herein, the Parties hereby agree as follows:

A G R E E M E N T :

1. **Construction of Improvements.** The Developer hereby acknowledges that the construction of drainage improvements is necessary for the development of the Project, is lawfully required by the City pursuant to the West Valley City Code and applicable State and federal law, and is a lawful condition precedent to the approval and development of the Project. The Developer further expressly acknowledges that the approval of the Project by the City and the willingness of the City to execute this Agreement are both the result of the Developer's request that the City accommodate the Developer's desire to complete the Project.

2. **Storm Water Drainage System Improvements.** The improvements which are being constructed by the Developer are part of the City's major storm water drainage system, and are in excess of the Developer's storm drainage obligations under law. The improvements are described in Exhibit A to this Agreement, and are referred to as the "Excess Improvements." The reimbursement to the Developer set forth in this Agreement is contingent upon the inspection and acceptance of the Excess Improvements by the City.

3. **Reimbursement.** Pursuant to sections 8-1-111 and 18-5-201 of the West Valley City Municipal Code, the City may reimburse the Developer for the Excess Improvements. The Parties hereby acknowledge and agree that the total reimbursement payable to the Developer shall not exceed Fifty Two Thousand Two Hundred and Seventy Six Dollars ($52,276.00). This sum represents the estimated total cost of the Excess Improvements as described in Exhibit A to this Agreement. The Developer shall be paid the total reimbursable sum within three years after the inspection and acceptance of the improvements by the City.

4. **Full Compensation and Waiver.** The Developer hereby agrees that the reimbursement described in Section 3 shall constitute the full and entire amount of reimbursement payable to Developer. Developer shall not be entitled to any additional reimbursement, compensation, incentive or other payment related to this Project or any other project within the City as of the effective date of this Agreement. This Section shall not apply to future projects, not yet contemplated, in the City. Developer hereby waives any claim for reimbursement or refund of any fees, charges, assessments, or costs incurred by the Developer in the course of developing the Project and acknowledges that the reimbursement set forth in Section 3 constitutes full and complete satisfaction of any such claims.

5. **No Accrual of Interest.** The Parties expressly agree that the total potential reimbursement to the Developer, as set forth in this Agreement, has not, to the date of this Agreement, and shall not in the future, accrue interest.

6. **Notices.** All notices, requests, demands, and other communications required under this Agreement, except for normal, daily business communications, shall be in writing. Such written communication shall be effective upon personal delivery to any party or upon

being sent by overnight mail service; by facsimile (with verbal confirmation of receipt); or by certified mail, return receipt requested, postage prepaid, and addressed to the respective Parties as follows:

If to the Developer: _____
_____
_____
_____

If to the City: West Valley City
Attn: Public Works Director
3600 South Constitution Blvd.
West Valley City, Utah 84119

Either party may change its address for purposes of this Agreement by giving written notice to the other party.

7. **Entire Agreement.** This Agreement contains the entire agreement between the Parties and expressly supersedes any prior agreements between the City and the Developer regarding the subject matter contained herein. No statement, promise or inducements made by either party or agents for either party, which are not contained in this written Agreement, shall be binding or valid. This Agreement may not be enlarged, modified, or altered, except in writing signed by both Parties.

8. **No Third Party Beneficiary.** This Agreement is not intended to create, nor shall it be deemed to create, any right in any person or entity who is not a party to this Agreement and shall not be construed in any respect to be a contract in whole or in part for the benefit of any third party.

9. **Severability.** If any portion of this Agreement is declared invalid by a court of competent jurisdiction, the remaining portions shall not be affected thereby, but shall remain in full force and effect.

10. **Governing Law and Venue.** This Agreement shall be interpreted and construed in accordance with the laws of the State of Utah. Any litigation arising from or relating to the content or subject matter of this Agreement shall be brought in the Third District Court in Salt Lake City, Utah or in the United States District Court for the District of Utah in Salt Lake City, Utah.

11. **Term of Agreement.** This Agreement shall remain in force until such time as the Developer has received the reimbursement as set forth in Section 3.

(Signatures follow)

IN WITNESS WHEREOF, the Parties have executed this Agreement the day and year first above written.

WEST VALLEY CITY

_____

Mayor

Attest:

_____

City Recorder

APPROVED AS TO FORM
WVC Attorney's Office

By: _____

Date: _____

DEVELOPER

_____

By: _____

Its: _____

State of Utah)
:ss
County of Salt Lake)

On this _____ day of _____, 20___, personally appeared before me _____ *[name of person(s)]*, whose identity is personally known to me or proved to me on the basis of satisfactory evidence, and who affirmed that he/she is the _____ *[title]*, of (ENTITY), a corporation, and that this document was signed by him/her in behalf of said corporation by authority of its bylaws or of a resolution of its Board of Directors, and he/she acknowledged to me that said corporation executed the same.

_____

Notary Public

EXHIBIT A

EXCESS IMPROVEMENTS INSTALLED BY DEVELOPER

WEST VALLEY CITY
Engineering

Exhibit 'A'

Item #	Description	Quantity	Unit Price	Item Total
1	36-inch Reinforced Concrete Pipe	718	$34.00 *	$24,412.00
2	30-inch Reinforced Concrete Pipe	287	$49.00	$14,063.00
3	24-inch Reinforced Concrete Pipe	373	$37.00	$13,801.00
			Total Amount	**$52,276.00**

* Unit Price is based on cost of 36-inch RCP minus cost of 15-inch RCP

CALL BLUESTAKES @ 1-800-662-4111 AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

BENCHMARK

BENCHMARK IS THE SOUTHWEST CORNER OF SECTION 27, TOWNSHIP 1 SOUTH, RANGE 2 WEST, SALT LAKE BASE & MERIDIAN FOUND 2.5" BRASS CAP MONUMENT

ELEVATION = 4332.95

SCOPE OF WORK:

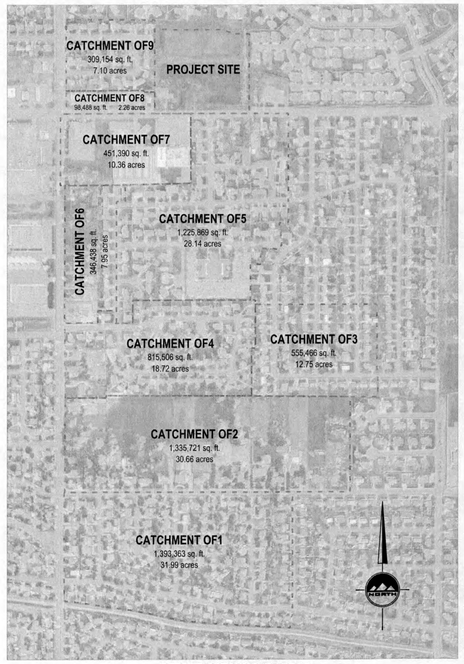
PROVIDE, INSTALL AND/OR CONSTRUCT THE FOLLOWING PER THE SPECIFICATIONS GIVEN OR REFERENCED, THE DETAILS NOTED, AND/OR AS SHOWN ON THE CONSTRUCTION DRAWINGS:

1. HANDICAP ACCESSIBLE RAMP WITH DETECTIBLE SURFACE PER APWA STANDARD PLAN 235.
2. SOD LANDSCAPING
3. HANDICAP ACCESSIBLE RAMP WITH DETECTIBLE SURFACE PER UDOT STANDARD PLAN GW5C.

SD# STORM DRAIN PIPE NUMBER (SEE CALCULATIONS THIS SHEET)

GRADING AND DRAINAGE NOTES

1. CONTRACTOR TO STRIP AND CLEAR THE TOPSOIL, MAJOR ROOTS AND ORGANIC MATERIAL FROM ALL PROPOSED BUILDING AND PAVEMENT AREAS PRIOR TO SITE GRADING. (THE TOPSOIL MAY BE STOCKPILED FOR LATER USE IN LANDSCAPED AREAS.)
2. ALL DEBRIS PILES AND BERMS SHOULD BE REMOVED AND HAULED AWAY FROM SITE OR USED AS GENERAL FILL IN LANDSCAPED AREAS.
3. CONTRACTOR TO GRADE PROJECT SITE TO PROVIDE A SMOOTH TRANSITION BETWEEN NEW AND EXISTING ASPHALT, CURB AND GUTTER, AND ADJOINING SITE IMPROVEMENTS.
4. CONTRACTOR RESPONSIBLE FOR DAMAGE AND DEBRIS ON ADJACENT STREETS WHEN EQUIPMENT IS TRAVELING THOSE STREETS.
5. CONTRACTOR SHALL BE FAMILIAR WITH ALL CONDITIONS AND RECOMMENDATIONS OUTLINED IN THE GEOTECHNICAL REPORT AND TAKE ALL NECESSARY PRECAUTIONS AND RECOMMENDED PROCEDURES TO ASSURE SOUND GRADING PRACTICES.
6. CONTRACTOR SHALL REMOVE ALL ORGANIC MATERIAL AND OTHER DELETERIOUS MATERIALS PRIOR TO PLACING GRADING FILL OR BASE COURSE. THE AREA SHOULD BE PROOF ROLLED TO IDENTIFY ANY SOFT AREAS. WHERE SOFT AREAS ARE ENCOUNTERED THE CONTRACTOR SHALL REMOVE THE SOIL AND REPLACE WITH COMPACTED FILL.
7. CONTRACTOR SHALL TAKE APPROPRIATE GRADING MEASURES TO DIRECT STORM SURFACE RUNOFF TOWARDS CATCH BASINS.
8. ALL STORM DRAIN WILL BE CLASS III RCP.
9. ALL LOTS MUST HAVE POSITIVE DRAINAGE FROM THE FRONT OF THE HOUSE TO THE STREET.
10. STORM WATER THAT CANNOT BE DIRECTED TO THE PUBLIC STREET MUST BE RETAINED ON INDIVIDUAL LOTS.



OFFSITE CATCHMENT AREAS
SCALE: 1" = 500'

Pipe Design (10-year storm)
Mannings N 0.013

Pipe	Tributary Basins	Surface Flow (CFS)	Upstream Pipes	Pipe Flow (CFS)	"Total Flow" (CFS)	Pipe Slope	Diameter (IN)	Full Flow Capacity (CFS)	% of Full-Flow Capacity
PIPE SD1b	1b	0.261	OF 2-5	33.234	26.640	0.50%	30	29.082	91.6%
PIPE SD2	OF 7&8	13.276	OF 1 & 6	25.543	27.470	2.30%	24	34.401	79.9%
PIPE SD1a	1a	0.261	SD2	27.470	27.731	2.30%	24	34.401	80.6%
PIPE SD3	none	0.000	SD1a & SD1b	55.201	52.830	1.75%	36	88.471	59.7%
PIPE SD4	2	0.692	none	0.000	0.692	2.00%	15	9.160	7.6%
PIPE SD5	none	0.000	SD3 & SD4	53.522	52.830	1.00%	36	66.878	79.0%
PIPE SD6	3	0.422	PIPE SD5	52.830	52.830	1.00%	36	66.878	79.0%
PIPE SD7	3a	0.383	PIPE SD6	52.830	52.830	2.90%	36	113.889	46.4%
PIPE SD8	4	1.565	OF 9	3.228	4.793	2.00%	15	9.160	52.3%
PIPE SD9	6	0.252	none	0.000	0.252	1.00%	15	6.477	3.9%
PIPE SD10	5	0.370	SD8 & SD9	5.045	5.415	1.50%	15	7.933	68.3%
PIPE SD11	8	0.381	none	0.000	0.381	3.00%	15	11.219	3.4%
PIPE SD12	7	1.376	PIPE 10 & 11	5.797	4.650	4.59%	15	13.877	33.5%
PIPE SD13	none	0.000	PIPE 7 & 12	57.480	55.500	4.09%	36	135.252	41.0%
PIPE SD14	9	1.529	none	0.000	1.529	2.00%	15	9.160	16.7%
PIPE SD15	none	0.000	PIPE 13 & 14	57.029	55.500	2.56%	36	106.795	52.0%

All Total Pipe Peak flows are from the Storm and Sanitary Sewer Analysis model

Study Summary Statistics

Total Area	429,486 SF
Total Area	9.86 Acres
Composite C	0.400

Catchment Calculations (10-year storm)
Time of Concentration: 10 min
Rainfall Intensity I: 2.28 in/hr

Catchment	Area (SF)	C	Flow (CFS)	Destination
1a	16,110	0.400	0.340	PIPE SD1a
1b	12,379	0.400	0.261	PIPE SD1b
2	32,789	0.400	0.692	PIPE SD4
3	19,987	0.400	0.422	PIPE SD6
3a	18,158	0.400	0.383	PIPE SD7
4	74,145	0.400	1.565	PIPE SD8
5	17,532	0.400	0.370	PIPE SD10
6	11,923	0.400	0.252	PIPE SD9
7	65,196	0.400	1.376	PIPE SD12
8	18,071	0.400	0.381	PIPE SD11
9	72,434	0.400	1.529	PIPE SD14

Lot Retention Calculations (100-year storm)
Runoff coefficient C: 0.30
24 hr Intensity: 0.13 in/hr

Lot	Area (ft²)	Required Storage (ft³)
103	6000	464
104	5040	390
105	5040	390
106	4950	383
107	5070	392
109	7035	544
110	7035	544
111	7035	544
112	7035	544
114	7675	594
115	5310	411
116	10692	827

Catchment Calculations (10-year storm)
Time of Concentration: 10 min
Rainfall Intensity I: 2.28 in/hr

Catchment	Area (SF)	Area (acre)	C	Time of Concentration (min)	Rainfall Intensity (in/hr)	Flow (CFS)
OF1	1,393,363	31.987	0.350	23.87	1.59	17.988
OF2	1,335,721	30.664	0.300	82.75	0.46	4.275
OF3	555,466	12.752	0.350	24.00	1.59	7.147
OF4	815,506	18.721	0.350	29.14	1.38	9.089
OF5	1,225,869	28.142	0.350	33.54	1.28	12.723
OF6	346,438	7.953	0.350	40.30	1.17	3.279
OF7	451,390	10.362	0.650	28.11	1.42	9.633
OF8	98,488	2.261	0.750	12.33	2.13	3.644
OF9	309,154	7.097	0.350	33.07	1.29	3.228

HORIZONTAL GRAPHIC SCALE
40 0 20 40 80
(IN FEET)
HORZ: 1 inch = 40 ft.

ENSIGN

SALT LAKE CITY
45 W. 10000 S., Suite 500
Sandy, UT 84070
Phone: 801.255.0529
Fax: 801.255.4449

LAYTON
Phone: 801.547.1100

TOOELE
Phone: 435.843.3590

CEDAR CITY
Phone: 435.865.1453

RICHFIELD
Phone: 435.590.0187

WWW.ENSIGNENG.COM

FOR:
ENSIGN DEVELOPMENT
5941 SOUTH REDWOOD ROAD
TAYLORSVILLE, UTAH 84123

CONTACT:
ELYAS RAIGNE
PHONE: 801-261-0160
FAX:

THOMASVILLE MANOR SUBDIVISION

3500 SOUTH 7040 WEST
WEST VALLEY CITY, UTAH

PROFESSIONAL ENGINEER
No. 5049039
4-8-15
STATE OF UTAH
CAMERON HESS PRESTON

NO.	DATE	REVISION	BY
1	1-20-15	FOR APPROVAL	CHP
2	3-4-15	WVC COMMENTS & UDOT	CHP
3	4-8-15	FOR APPROVAL	CHP
4			
5			
6			
7			
8			

GRADING AND DRAINAGE PLAN

PROJECT NUMBER 6048
PRINT DATE 4/8/15
DRAWN BY M.ELMER
CHECKED BY C.PRESTON
PROJECT MANAGER P.HARRIS

C-100

Item:
Fiscal Impact: N/A
Funding Source: N/A
Account No: N/A

Budget Opening Required: ☐

Issue:

Storm Drain Easement.

Synopsis:

Acceptance of a Storm Drain Easement from Eric D. Bishop, Inc., Adams Bay Lighthouse Investment, LLC and the Eric D. Bishop, Inc. Pension & Profit Sharing Trust have signed an easement in favor of West Valley City across properties owned by the Amended and Restated Mildred L. Defa Family Trust, December 7, 2010 (14-34-276-045) and Spangler Family Trust (14-34-276-044). This easement will allow for storm water from the proposed Clearstone Estates Phase 2 Subdivision to be piped to the City storm drain in 6400 West.

Background:

The underlying property for the proposed Clearstone Estates Phase 2 Subdivision (14-34-276-057) included a 16 foot easement for storm drain and other utilities across the Defa and Spangler properties. In order for a public storm drain to be constructed across these properties, it was necessary for Eric Bishop et al to convey their interest in a storm drain easement to West Valley City.

Recommendation:

Acceptance of a Storm Drain Easement. Authorize City Recorder to record said easement for and in behalf of West Valley City.

Submitted By:

Steven J. Dale, P.L.S., Right-of-way and Survey Section Manager

WEST VALLEY CITY, UTAH

RESOLUTION NO. _____

A RESOLUTION AUTHORIZING THE ACCEPTANCE OF A STORM DRAIN EASEMENT FROM ERIC D. BISHOP, INC., ADAMS BAY LIGHTHOUSE INVESTMENT, LLC AND THE ERIC D. BISHOP, INC. PENSION & PROFIT SHARING TRUST ("GRANTORS") IN FAVOR OF WEST VALLEY CITY ACROSS PROPERTIES OWNED BY THE AMENDED AND RESTATED MILDRED L. DEFA FAMILY TRUST, (14-34-276-045) AND SPANGLER FAMILY TRUST (14-34-276-044).

WHEREAS, this easement will allow for storm water from the proposed Clearstone Estates Phase 2 Subdivision to be piped to the City storm drain in 6400 West; and

WHEREAS, the underlying property for the proposed Clearstone Estates Phase 2 Subdivision (14-34-276-057) included a 16 foot easement for storm drain and other utilities across the Defa and Spangler properties. In order for a public storm drain to be constructed across these properties, it was necessary for Grantors to convey their interest in a storm drain easement to West Valley City; and

WHEREAS, a storm drain easement has been signed by Grantors granting access to West Valley City for location of storm drain facilities across the Property; and

WHEREAS, the City Council of West Valley City, Utah, does hereby determine that it is in the best interests of the health, safety and welfare of the citizens of West Valley City to accept the storm drain easement from Grantors;

NOW, THEREFORE, BE IT RESOLVED, by the City Council of West Valley City, Utah, that the storm drain easement from Grantors is hereby approved, and that the Mayor is hereby authorized to accept, and the City Recorder is authorized to record, said storm drain easement for and in behalf of West Valley City.

PASSED, APPROVED and MADE EFFECTIVE this _____ day of _____ _____, 2016.

WEST VALLEY CITY

_____

MAYOR

ATTEST:

CITY RECORDER

When recorded return to:
West Valley City Recorder
3600 South Constitution Blvd.
West Valley City, Utah 84119

Space above for County Recorder's use
PARCEL # 14-34-276-057

STORM DRAIN EASEMENT

For valuable consideration, receipt of which is hereby acknowledged, Eric D. Bishop, Inc., Adams Bay Lighthouse Investment, LLC, and Eric D. Bishop, Inc. Pension & Profit Sharing Trust (Grantors) hereby grant unto West Valley City, a Municipal Corporation of the State of Utah, located at 3600 Constitution Blvd., West Valley City, Utah 84119 (Grantee) its successors and assigns, its rights in interest to Easements as conveyed and described in that certain Quit Claim Deed recorded as Entry No. 5341928, in the office of the Salt Lake County Recorder, for the installation, operation, repair and maintenance of storm drain piping and facilities upon, over and across the following described properties:

Beginning at a point which is North 0 deg. 01'12" East 660. 00 feet and South 89 deg. 56'42" West 33.00 feet from the East quarter corner of Section 34, Township 1 South, Range 2 West, Salt Lake Base and Meridian, and running thence South 89 deg. 56'42" West 134.70 feet; thence South 0 deg. 01'12" West 16.00 feet; thence. North 89 deg. 56'42" East 134.70 feet; thence North 0 deg. 01'12" East 16.00 feet to the point of beginning. (14-34-276-044)

Also:

Beginning at a point which is North 0 deg. 01'12" East 272.00 feet and West 33. 00 feet from the East quarter corner of Section 34, Township 1 South, Range 2 West, Salt Lake Base and Meridian, and running thence West 709.66 feet; thence North 387.27 feet; for the beginning of this description; thence North 89 deg. 56'42" East 575.10 feet; thence South 0 deg. 01'12" West 16.00 feet; thence South 89 deg. 56'42" West 575.10 feet more or less to a point 16.00 feet due South of beginning; thence North 16.00 feet to the point of beginning. (14-34-276-045)

Dated this 7th day of January, 2016.

GRANTORS
Eric D. Bishop, Inc.

By: _____

Adams Bay Lighthouse Investment, LLC

By: _____

Eric D. Bishop, Inc. Pension & Profit Sharing Trust

By: _____

STATE OF UTAH)
) ss:
COUNTY OF SALT LAKE)

On the 7th day of January, 2016, personally appeared before me Eric D. Bishop who being by me duly sworn did say, that he/she is the President of Eric D. Bishop, Inc., the corporation that executed the above and foregoing instrument and that said instrument was signed on behalf of said corporation by authority of its by-laws (or by authority of a resolution of its board of directors) and said Eric D. Bishop acknowledged to me that said corporation executed the same.

Notary Public
BRENDA L. BEATY
Commission #684088
My Commission Expires
July 9, 2019
State of Utah

Notary Public

STATE OF UTAH)
) ss.
COUNTY OF SALT LAKE)

On the 7th day of January, 2016, personally appeared before me Eric D. Bishop who being by me duly sworn, did say, that he/she, is the Manager of Adams Bay Lighthouse Investment, LLC, and that the within and foregoing instrument was signed on behalf of said Limited Liability company by authority of its Operating Agreement, and said Limited Liability Company executed the same.

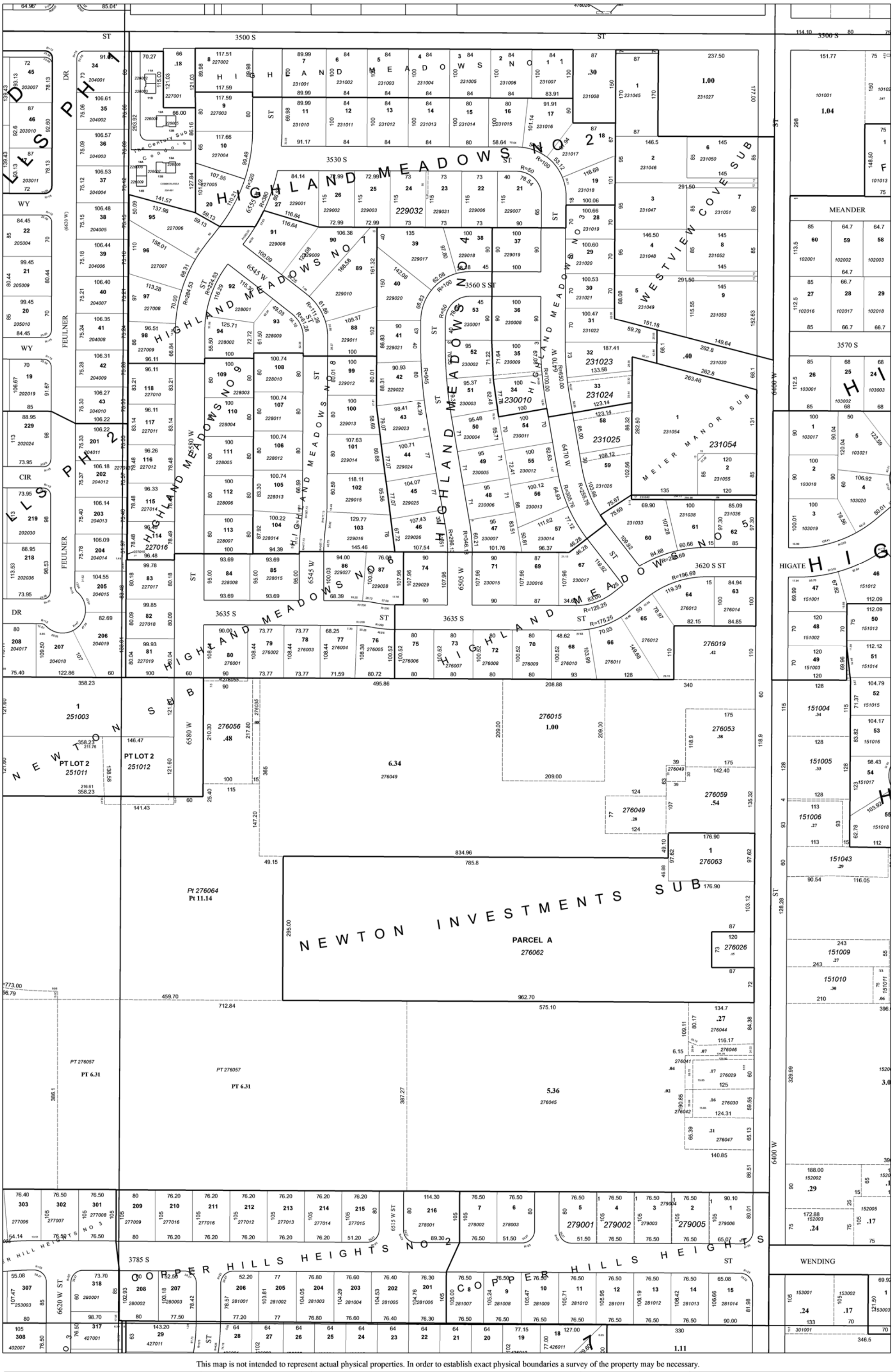
Notary Public
BRENDA L. BEATY
Commission #684088
My Commission Expires
July 9, 2019
State of Utah

Notary Public

STATE of UTAH)
) ss:
COUNTY OF SALT LAKE)

On the 7th day of January, 2016, personally appeared before me Eric D. Bishop, who upon being duly sworn (or affirmed) upon oath that he did sign the foregoing instrument with authority as granted in the capacity as Trustee of Eric D. Bishop, Inc. Pension & Profit Sharing Trust, and that the said Eric D. Bishop duly acknowledged to me that he executed the same.

Brenda L Beaty
Notary Public



This map is not intended to represent actual physical properties. In order to establish exact physical boundaries a survey of the property may be necessary.

Prepared and published by
Salt Lake County Recorder
Gary Ott
2001 S. State Street #N1600
Salt Lake City, Utah 84190
801-468-3391
http://slcorecorder.siredocs.com/

N W E S

E 1/2 NE 1/4 Sec 34 T1S R2W

SALT LAKE COUNTY, UTAH

12/13/2014

Scale 1"=100'

0 100' 200'

Feet

14-34-22

Area | Section | Page

Item #:	
Fiscal Impact:	$76.16 (6.77% of actual cost)
Funding Source:	HSIP Funds/Class C Roads
Account #:	11-7582-40750-75194-0000
Budget Opening Required:	No

ISSUE:

Authorization, acceptance and execution of a Right-of-way Contract, and acceptance of a Temporary Construction Easement.

SYNOPSIS:

Cline Mills and Rena G. Mills, Trustees of the Mills Family Trust, dated June 3, 2008 have signed a signed a Right-of-way Contract and a Temporary Construction Easement for property located at 3904 West 4100 South (15-32-354-022).

BACKGROUND:

The Mills Family Trust parcel located at 3904 West 4100 South is one of the properties affected by the 4100 South; 4000 West, 2700 West and 1300 West Signal Improvements Project. This project will widen intersection and improve signals on 4100 South at 4000 West, 2700 West and 1300 West. The acquisition from the Mills Family Trust does not require additional right-of-way, however a Temporary Construction Easement will be needed to facilitate construction of the project. Compensation for the purchase of the Temporary Construction Easement and improvements is $1,125.00 based upon the compensation estimate prepared by the DH Group, LLC.

The project is being funded under the Highway Safety Improvement Program (HSIP) with federal funds. Under a previously executed federal aid agreement, West Valley City is responsible for 6.77% of all project costs, including right of way. With the total value of the easement for this acquisition being $1,125.00, the West Valley City share of these easements will be $76.16.

RECOMMENDATION:

Accept Temporary Construction Easement and authorize Mayor to execute Right-of-way Contract. Authorize City Recorder to record Temporary Construction Easement.

SUBMITTED BY:

Steven J. Dale, P.L.S., Right-of-way and Survey Section Manager

WEST VALLEY CITY, UTAH

RESOLUTION NO. _____

A RESOLUTION AUTHORIZING THE CITY TO ENTER INTO A RIGHT-OF-WAY CONTRACT WITH CLINE MILLS AND RENA G. MILLS, TRUSTEES OF THE MILLS FAMILY TRUST (GRANTORS) AND TO ACCEPT A TEMPORARY CONSTRUCTION EASEMENT FOR PROPERTY LOCATED AT 3904 WEST AND 4100 SOUTH (15-32-354-022)

WHEREAS, Grantors own property located at approximately 3904 West and 4100 South, Parcel 15-32-354-022 (the Property); and

WHEREAS, the property is affected by the 4100 South; 4000 West, 2700 West and 1300 West Signal Improvements Project; and

WHEREAS, Grantors have also signed a temporary construction easement, as required for the road improvement project; and

WHEREAS, the City Council of West Valley City, Utah, does hereby determine that it is in the best interests of the health, safety, and welfare of the citizens of West Valley City to enter into the right-of-way contract with Grantors, and to accept the temporary construction easement;

NOW, THEREFORE, BE IT RESOLVED by the City Council of West Valley City, Utah, that the right-of-way contract is hereby approved in substantially the form attached, and that the Mayor is hereby authorized to execute said contract, and any other documents necessary to complete the transaction, for and in behalf of West Valley City, subject to final approval of the documents by the City Manager and the City Attorney's Office;

BE IT FURTHER RESOLVED that the Mayor is hereby authorized to accept, and the City Recorder is authorized to record, the right-of-way contract, and temporary construction easement for and in behalf of West Valley City.

PASSED, APPROVED and **MADE EFFECTIVE** this _____day of _____ _____, 2016.

WEST VALLEY CITY

_____

MAYOR

ATTEST:

_____

CITY RECORDER

West Valley City, a municipal corporation

Right of Way Contract

Fee Simple Acquisition - Strip Take

Project No: F-LC35(248) Parcel No.: 107:EC
Job/Proj / Auth No: 54335 Pin No: 12225
Project Location: 4100 S; 4000 W, 2700 W & 1300 W Signal Improvements
County of Property: SALT LAKE Tax ID / Sidwell No: 15-32-354-022
Property Address: 3904 West 4100 South WEST VALLEY CITY, UT 84120
Owner's Address: 3904 West 4100 South, WEST VALLEY CITY, UT 84120
Primary Phone: 801-969-2463 Owner's Home Phone: Owner's Work Phone:
Owner / Grantors: Cline Mills and Rena G. Mills, as Trustees of the Mills Family Trust dated June 2, 2008

IN CONSIDERATION of the foregoing and other considerations hereinafter set forth, it is mutually agreed by the parties as follows:

The Grantors hereby agrees to convey and sell by Temporary Easement a parcel of land known as parcel number 107:EC for transportation purposes. This contract is to be returned to: Steven J. Dale, Right of Way Agent c/o West Valley City, a municipal corporation, 3600 South Constitution Blvd, West Valley City, UT 84119.

1. Grantors will transfer property free of all liens and encumbrances except recorded easements.
2. Grantors agrees to transfer property free of all debris and any hazardous materials (including paint or other household products.)
3. Grantors shall leave the property in the same condition, as it was when this contract was signed. No work, improvement, or alteration will be done to the property other than what is provided for in this agreement. Grantors agree to maintain the property until the City takes possession.
4. Grantor agrees to pay any and all taxes assessed against this property to the date of closing.
5. The City shall pay the Grantor and or other parties of interest for the real property in the easement referenced above.
6. "Transportation Purposes" is defined as follows: The public use for which the property or property right is being acquired herein, may include but is not limited to the following possible uses: the construction and improvement of a highway, which may include interchanges, entry and exit ramps, frontage roads, bridges, overpasses, rest areas, buildings, signs and traffic control devices, placement of utilities, clear zones, maintenance facilities, detention or retention ponds, environmental mitigation, maintenance stations, material storage, bio fuel production, slope protections, drainage appurtenance, noise abatement, landscaping, transit, project caused statutory relocations, and other related transportation uses.
7. The Grantors are aware that Utah Code Ann. Sect. 78B-6-520.3 provides that in certain circumstances, the seller of property which is being acquired for a particular public use, is entitled to receive an offer to repurchase the property at the same price that the seller received, before the property can be put to a different use. Grantors waives any right grantor may have to repurchase the property being acquired herein, and waives any rights Grantors may have under Utah Code Ann. Sect. 78B-6-520.3.
8. Grantor shall indemnify and hold harmless Grantee from and against any and all claims, demands and actions, including costs, from lien holders or lessees of the property.
9. Upon execution of this contract by the parties, Grantor grants West Valley City, a municipal corporation, its contractors, permittees, and assigns, including but not limited to, utilities and their contractors, the right to immediately occupy and commence construction or other necessary activity on the property acquired for the state transportation project.

Additional Terms:

Total Selling Price $1,125.00

CM RGM
Grantor's Initials

West Valley City, a municipal corporation
Right of Way Contract
Fee Simple Acquisition - Strip Take

Project No: F-LC35(248) Parcel No.: 107:EC
Job/Proj / Auth No: 54335 Pin No: 12225
Project Location: 4100 S; 4000 W, 2700 W & 1300 W Signal Improvements
County of Property: SALT LAKE Tax ID / Sidwell No: 15-32-354-022
Property Address: 3904 West 4100 South, WEST VALLEY CITY, UT 84120
Owner's Address: 3904 West 4100 South, WEST VALLEY CITY, UT 84120
Primary Phone: 801-969-2463 Owner's Home Phone: Owner's Work Phone:
Owner / Grantor: Cline Mills and Rena G. Mills, as Trustees of the Mills Family Trust dated June 2, 2008

Grantor's Initials

_____ **Grantor understands this agreement is an option until approved by the West Valley City Council.**

_____ Grantors acknowledge and accept the percent of ownership listed below and agree that the portion of the total selling price they each receive, will correspond with their respective percent of ownership.

_____ This Contract may be signed in counterparts by use of counterpart signature pages, and each counterpart signature page shall constitute a part of this Contract as if all Grantors signed on the same page.

_____ **Percent**

X 100%

GRANTORS: **Date**
Mills Family Trust, dated June 2, 2008

Cline Mills 1-13-16
Cline Mills, Trustee

Rena G. Mills 1-13-16
Rena G. Mills, Trustee

GRANTEE: **Date**

Right of Way Agents

01/13/16
Steven J. Dale/Acquisition Agent

_____ _____
Michael C. Timothy/Team Leader

_____ _____
Approved by Mayor Ron Bigelow

_____ _____
Attest: City Recorder

APPROVED AS TO FORM
West Valley City Attorney's Office
By: _____
Date: 12.29.15

WHEN RECORDED, MAIL TO:
West Valley City Recorder
3600 Constitution Blvd.
West Valley, Utah 84119

Easement
(Trustee)

Salt Lake County

Tax ID No.	15-32-354-022
PIN No.	12225
Project No.	F-LC35(248)
Parcel No.	LC35:107:EC

Cline Mills and Rena G. Mills, as Trustees of the Mills Family Trust dated June 2, 2008, Grantors, of West Valley City, County of Salt Lake, State of Utah, hereby GRANT AND CONVEY to West Valley City, a municipal corporation of the State of Utah, at 3600 Constitution Boulevard, West Valley, Utah 84119, Grantee, for the sum of TEN ($10.00), Dollars, and other good and valuable considerations, the following described easement in Salt Lake County, State of Utah, to-wit:

A temporary easement, upon part of an entire tract of property, in the SW1/4SW1/4 of Section 32, T.1S., R.1W., S.L.B. & M., in Salt Lake County, Utah, to facilitate the construction of driveway and roadway improvements, side treatments and appurtenant parts thereof and blending slopes, incident to the intersection improvements of 4100 South Street and 4000 West Street related to Project No. F-LC35(248). This easement shall commence upon the beginning of actual construction on the property and shall continue only until project construction on the property is complete, or for three years, whichever first occurs. The easement shall be non-exclusive such that the Grantor may use the property at any time in a manner which does not interfere with construction activities. The boundaries of said easement are described as follows:

Beginning at the southwest corner of said entire tract and a point in the existing northerly right of way line of 4100 South Street, said point is 577.46 feet (577.5 feet by record) East and 53.00 feet North from the Southwest Corner of said Section 32, said point is also 53.00 feet perpendicularly distant northerly from the 4100 South Street Control Line opposite approximate engineer station 119+77.46; and running N.00°00'16"W. (North by record) 15.00 feet along the westerly boundary line of said entire tract; thence

Continued on Page 2

PIN No. 12225
Project No. F-LC35(248)
Parcel No. LC35:107:EC

S.88°27'18"E. 18.55 feet; thence South 14.50 feet along said westerly boundary line to said existing northerly right of way line; thence West 18.54 feet along said existing northerly right of way line to the point of beginning. The above described easement contains 273 square feet in area or 0.006 acre, more or less.

(Note: Rotate all bearings in the above description 00°08'27" clockwise to obtain highway bearings.)

After said construction of driveway and roadway improvements, side treatments and appurtenant parts thereof, and blending slopes are constructed at the expense of the West Valley City, said West Valley City is thereafter relieved of any further claim or demand for costs, damages or maintenance charges which may accrue driveway and roadway improvements, side treatments, and appurtenant parts thereof, and blending slopes.

Continued on Page 3

PIN No. 12225
Project No. F-LC35(248)
Parcel No. LC35:107:EC

WITNESS, the hands of said Grantor, this 13TH day of JANUARY, A.D. 20 16.

Mills Family Trust dated June 2, 2008

Cline Mills, Trustee

Rena G. Mills, Trustee

STATE OF UTAH)
) ss.
COUNTY OF SALT LAKE)

On the date first above written personally appeared before me, Cline Mills and Rena G. Mills, who, being by me duly sworn, acknowledged to me that they signed the within and foregoing instrument in accordance with the authority as Trustees given under the instrument creating said Trust, and that as Trustees they executed the same.

NOTARY PUBLIC
STEVEN J. DALE
Commission No. 682382
Commission Expires
MARCH 24, 2019
STATE OF UTAH

Notary Public

WEST VALLEY CITY
(INCORPORATED)

116+00 | 117+00 | 118+00 | 119+00 | 120+00 | 121+00 | 122+00 | 123+00 | 124+00

SW 1/4 SW 1/4
SEC. 32

TOUCHSTONE INVESTMENTS
3940 W 4100 S
ENTRY NO. 6635026

3920 W 4100 S
ENTRY NO. 6635026

KENNY K. LAM
3910 W 4100 S
ENTRY NO. 1180626

CLINE & RENA G. MILLS, TRUSTEES
3904 W 4100 S
ENTRY NO. 10663507

THANG PHAM AND LOAN LUU
3974 W 4100 S
ENTRY NO. 10155684

104:C | 104:EC TEMPORARY EASEMENT | 105:EC TEMPORARY EASEMENT | 105:C | 106:C | 106:EC | 107:EC TEMPORARY EASEMENT

116+40.00 83.00' LT | 10.00' | TE | 67.50' | 179.32' | R/W LINE | 237.50' | 237.44' | Exist. R/W Line
116+40.00 73.00' LT
117+07.50 83.14' LT | 10.00' | 33.50' | TE | 36.00' | 9.00' | r/w
117+41.00 72.00' LT | 117+43.50 62.00' LT | 32.02' | 117+73.00 76.00' LT | 5.00' | TE | 204.97' | r/w | 169.10'
117+73.00 71.00' LT
117+07.50 53.00' LT
117+07.50 62.00' LT
119+12.47 71.00' LT | 15.50' | 139.56' | 119+77.46 68.00' LT | 65.06' | TE | 15.00' | 65.04' | 64.99' | 2.50' | R/W LINE
119+12.47 55.50' LT | r/w
119+12.47 53.00' LT
119+77.46 53.00' LT
18.55' | 14.50' | 119+96.00 67.50' LT
18.54' | 119+96.00 53.00' LT
r/w | Exist. R/W Line

4100 SOUTH STREET CONTROL LINE
S89°51'33"E 2646.17'

4100 SOUTH STREET

FOUND NE COR. OF SEC. 5
N 418965.375
E 511034.555

PI 140+46.17
N 418972.862
E 508388.590

Exist. 53.00'

T.1S. R.1W. S.L.B. & M.
T.2S. R.1W. S.L.B. & M.
SECTION LINE S89°51'33"E 2646.17'

FOUND NORTH 1/4 COR. OF SEC. 5
N 418972.862
E 508388.590

4100 SOUTH STREET CONTROL LINE & SECTION LINE
S89°50'16"E 2645.98'

PI 166+92.15
N 418965.375
E 511034.555

3920 WEST STREET

NW 1/4 NW 1/4
SEC. 5

60 30 0 60
SCALE IN FEET

REVISIONS

NO.	DATE	APPROVED BY	REMARKS

DRAWN BY: GKD | CHECKED BY: TJB | QC: | DATE: 06/18/2015

UTAH DEPARTMENT OF TRANSPORTATION
REGION 2 - MERIDIAN ENGINEERING, INC.

APPROVED
PROFESSIONAL LAND SURVEYOR

PROJECT: 4100 S; 4000 W. 2700 W & 1300 W SIGNAL IMPS
PROJECT NUMBER: F-LC35(248) | PIN: 12225

RIGHT-OF-WAY PLAN

SALT LAKE COUNTY

SHEET NO. RW-03

DGN File:U:\Projects\12225_4100_S_4000_W_2700_W_AND_1300_W_SIGNAL_IMPS\right of way\12225_F-LC35(248)_RW-03.dgn
08-JUL-2015

Item #:	
Fiscal Impact:	$94.78 (6.77% of actual cost)
Funding Source:	HSIP Funds/Class C Roads
Account #:	11-7582-40750-75194-0000
Budget Opening Required:	No

ISSUE:

Authorization, acceptance and execution of a Right-of-way Contract, and acceptance of a Warranty Deed and two Temporary Construction Easements.

SYNOPSIS:

Neil R. Lund and Susan H. Lund have signed a signed a Right-of-way Contract, Warranty Deed and two Temporary Construction Easements for property located at 4094 S. Constitution Boulevard (15-33-380-013).

BACKGROUND:

The Neil R. Lund and Susan H. Lund parcel located at 4094 S. Constitution Boulevard is one of the properties affected by the 4100 South; 4000 West, 2700 West and 1300 West Signal Improvements Project. This project will widen intersection and improve signals on 4100 South at 4000 West, 2700 West and 1300 West. The acquisition from Neil R. Lund and Susan H. Lund includes 64 square feet of right-of-way. Compensation for the purchase of the Warranty Deed, Temporary Construction Easements and improvements is $1,400.00 based upon the appraisal report by the DH Group, LLC.

The project is being funded under the Highway Safety Improvement Program (HSIP) with federal funds. Under a previously executed federal aid agreement, West Valley City is responsible for 6.77% of all project costs, including right of way. With the total value of the easement for this acquisition being $1,125.00, the West Valley City share of these easements will be $94.78.

RECOMMENDATION:

Accept Warranty Deed and Temporary Construction Easements and authorize Mayor to execute Right-of-way Contract. Authorize City Recorder to record Warranty Deeds and Temporary Construction Easements.

SUBMITTED BY:

Steven J. Dale, P.L.S., Right-of-way and Survey Section Manager

WEST VALLEY CITY, UTAH

RESOLUTION NO. _____

A RESOLUTION AUTHORIZING THE CITY TO ENTER INTO A RIGHT-OF-WAY CONTRACT WITH NEIL R. LUND AND SUSAN H. LUND, AND TO ACCEPT A WARRANTY DEED AND A TEMPORARY CONSTRUCTION EASEMENT FOR PROPERTY LOCATED AT 4094 SOUTH CONSTITUTION BOULEVARD (15-33-380-013)

WHEREAS, Neil R. Lund and Susan H. Lund, (hereinafter "Lund and Lund") have entered into a right of way contract for property located at 4094 South Constitution Boulevard (15-33-380-013 (hereinafter the "Property") that is necessary for improvements to 4100 South; 4000 West, 2700 West and 1300 West Signal Improvements Project; and

WHEREAS, Lund and Lund have also signed a warranty deed and a temporary construction easement, as required for the road improvement project; and

WHEREAS, the City Council of West Valley City, Utah, does hereby determine that it is in the best interests of the health, safety, and welfare of the citizens of West Valley City to enter into the right-of-way contract with Lund and Lund, and to accept the warranty deed, and temporary construction easement;

NOW, THEREFORE, BE IT RESOLVED by the City Council of West Valley City, Utah, that the right-of-way contract is hereby approved in substantially the form attached, and that the Mayor is hereby authorized to execute said contract, and any other documents necessary to complete the transaction, for and in behalf of West Valley City, subject to final approval of the documents by the City Manager and the City Attorney's Office;

BE IT FURTHER RESOLVED that the Mayor is hereby authorized to accept, and the City Recorder is authorized to record, the right-of-way contract, warranty deed, and temporary construction easement for and in behalf of West Valley City.

PASSED, APPROVED and **MADE EFFECTIVE** this _____day of _____ _____, 2016.

WEST VALLEY CITY

_____

MAYOR

ATTEST:

_____

CITY RECORDER

West Valley City, a municipal corporation

Right of Way Contract

Fee Simple Acquisition - Strip Take

Project No: F-LC35(248) Parcel No.(s): 108:2EC, 108:C, 108:E
Job/Proj / Auth No: 54335 Pin No: 12225
Project Location: 4100 S; 4000 W, 2700 W & 1300 W Signal Improvements
County of Property: SALT LAKE Tax ID / Sidwell No: 15-33-380-013
Property Address: 4094 South Constitution Boulevard WEST VALLEY CITY, UT 84120
Owner's Address: 2103 East 6425 South, HOLLADAY, UT 84121
Primary Phone: 801-277-2848 Owner's Home Phone: Owner's Work Phone:
Owner / Grantors: Neil R. Lund and Susan H. Lund, his wife, as Joint Tenants

IN CONSIDERATION of the foregoing and other considerations hereinafter set forth, it is mutually agreed by the parties as follows:

The Grantor hereby agrees to convey and sell by Warranty Deed, Temporary Easement, Temporary Easement a parcel(s) of land known as parcel number(s) 108:2EC, 108:C, 108:E for transportation purposes. This contract is to be returned to: Steven J Dale, Right of Way Agent c/o West Valley City, a municipal corporation, 3600 South Constitution Blvd, West Valley City, UT 84119.

1. Grantor will transfer property free of all liens and encumbrances except recorded easements.
2. Grantor agrees to transfer property free of all debris and any hazardous materials (including paint or other household products.)
3. Grantor shall leave the property in the same condition, as it was when this contract was signed. No work, improvement, or alteration will be done to the property other than what is provided for in this agreement. Grantor agrees to maintain the property until the City takes possession.
4. Grantor agrees to pay any and all taxes assessed against this property to the date of closing.
5. The City shall pay the Grantor and or other parties of interest for the real property in the deed(s) and/or easement(s) referenced above.
6. "Transportation Purposes" is defined as follows: The public use for which the property or property right is being acquired herein, may include but is not limited to the following possible uses: the construction and improvement of a highway, which may include interchanges, entry and exit ramps, frontage roads, bridges, overpasses, rest areas, buildings, signs and traffic control devices, placement of utilities, clear zones, maintenance facilities, detention or retention ponds, environmental mitigation, maintenance stations, material storage, bio fuel production, slope protections, drainage appurtenance, noise abatement, landscaping, transit, project caused statutory relocations, and other related transportation uses.
7. The Grantor(s) is aware that Utah Code Ann. Sect. 78B-6-520.3 provides that in certain circumstances, the seller of property which is being acquired for a particular public use, is entitled to receive an offer to repurchase the property at the same price that the seller received, before the property can be put to a different use. Grantor(s) waives any right grantor may have to repurchase the property being acquired herein, and waives any rights Grantor(s) may have under Utah Code Ann. Sect. 78B-6-520.3.
8. Grantor shall indemnify and hold harmless Grantee from and against any and all claims, demands and actions, including costs, from lien holders or lessees of the property.
9. Upon execution of this contract by the parties, Grantor grants West Valley City, a municipal corporation, its contractors, permittees, and assigns, including but not limited to, utilities and their contractors, the right to immediately occupy and commence construction or other necessary activity on the property acquired for the state transportation project.

Additional Terms:

Total Selling Price $1,400.00

NRL SL
Grantor's Initials

WEST VALLEY CITY
Unity Pride Progress

West Valley City, a municipal corporation

Right of Way Contract

Fee Simple Acquisition - Strip Take

Project No: F-LC35(248) Parcel No.(s): 108:2EC, 108:C, 108:E
Job/Proj / Auth No: 54335 Pin No: 12225
Project Location: 4100 S; 4000 W, 2700 W & 1300 W Signal Improvements
County of Property: SALT LAKE Tax ID / Sidwell No: 15-33-380-013
Property Address: 4094 South Constitution Boulevard, WEST VALLEY CITY, UT 84120
Owner's Address: 2103 East 6425 South, HOLLADAY, UT 84121
Primary Phone: Owner's Home Phone: Owner's Work Phone:
Owner / Grantors: Neil R. Lund and Susan H. Lund, his wife, as Joint Tenants

Grantor's Initials

_____ **Grantor understands this agreement is an option until approved by the West Valley City Council.**

_____ Grantors acknowledge and accept the percent of ownership listed below and agree that the portion of the total selling price they each receive, will correspond with their respective percent of ownership.

_____ This Contract may be signed in counterparts by use of counterpart signature pages, and each counterpart signature page shall constitute a part of this Contract as if all Grantors signed on the same page.

_____ **Percent**

X
_____ 100%

GRANTORS: **Date**

_____ Jan 13, 2016
Neil R. Lund

_____ 1-13-16
Susan H. Lund

GRANTEE: **Date**

Right of Way Agents

_____ 01/13/16
Steven J. Dale/Acquisition Agent

_____ _____
Michael C. Timothy/Team Leader

_____ _____
Approved by Mayor Ron Bigelow

_____ _____
Attest: City Recorder

NKL
Grantor's Initials

WHEN RECORDED, MAIL TO:
West Valley City Recorder
3600 Constitution Blvd.
West Valley, Utah 84119

Easement

(Individual)

Salt Lake County

Tax ID No.	15-33-380-013
PIN No.	12225
Project No.	F-LC35(248)
Parcel No.	LC35:108:EC

Neil R. Lund and Susan H. Lund, his wife, as joint tenants, Grantors, of Holladay, County of Salt Lake, State of Utah, hereby GRANT AND CONVEY to West Valley City, a municipal corporation of the State of Utah, at 3600 Constitution Boulevard, West Valley, Utah 84119, Grantee, for the sum of TEN ($10.00), Dollars, and other good and valuable considerations, the following described easement in Salt Lake County, State of Utah, to-wit:

A temporary easement, upon part of an entire tract of property, in the SE1/4SW1/4 of Section 33, T.1S., R.1W., S.L.B. & M., in Salt Lake County, Utah, to facilitate the construction of driveway and roadway improvements, side treatments and appurtenant parts thereof and blending slopes, incident to the intersection improvements of 4100 South Street and 2700 West Street related to Project No. F-LC35(248). This easement shall commence upon the beginning of actual construction on the property and shall continue only until project construction on the property is complete, or for three years, whichever first occurs. The easement shall be non-exclusive such that the Grantor may use the property at any time in a manner which does not interfere with construction activities. The boundaries of said easement are described as follows:

Beginning at the southeast corner of said entire tract and a point in the existing northerly right of way line of

4100 West Street, said point is 53.00 feet N.00°00'44"E. and 64.97 feet S.89°52'32"W. from the South Quarter Corner of said Section 33, said point is also 53.00 feet perpendicularly distant northerly from the 4100 South Street Control Line opposite approximate engineer station 192+73.10; and running thence S.89°53'06"W. (S.89°52'32"W. by record) 7.10 feet parallel with said control line and along said existing

Continued on Page 2

northerly right of way line; thence N.44°53'39"E. 31.27 feet to a point in the existing westerly right of way line of 2700 West Street; thence S.00°00'44"W. 7.14 feet parallel with said control line and along said existing westerly right of way line; thence S.44°56'55"W. 21.19 feet to the point of beginning. The above described easement contains 132 square ft. in area or 0.003 acre, more or less.

(Note: Rotate all bearings in the above description 00°14'22" clockwise to obtain highway bearings.)

After said construction of driveway and roadway improvements, side treatments and appurtenant parts thereof, and blending slopes are constructed at the expense of West Valley City, said West Valley City is thereafter relieved of any further claim or demand for costs, damages or maintenance charges which may accrue driveway and roadway improvements, side treatments, and appurtenant parts thereof, and blending slopes.

Continued on Page 3

PIN No. 12225
Project No. F-LC35(248)
Parcel No. LC35:108:EC

WITNESS, the hands of said Grantors, this 13TH day of JANUARY, A.D. 20 16.

Neil R. Lund

Susan H. Lund

STATE OF UTAH)
: ss
COUNTY OF SALT LAKE)

On the date first above written personally appeared before me, Neil R. Lund and Susan H. Lund, the signers of the within and foregoing instrument, who duly acknowledged to me that they executed the same.

NOTARY PUBLIC
STEVEN J. DALE
Commission No. 682382
Commission Expires
MARCH 24, 2019
STATE OF UTAH

Notary Public

WHEN RECORDED, MAIL TO:
West Valley City Recorder
3600 Constitution Blvd.
West Valley, Utah 84119

Warranty Deed

(Individual)

Salt Lake County

Tax ID No.	15-33-380-013
PIN No.	12225
Project No.	F-LC35(248)
Parcel No.	LC35:108:C

Neil R. Lund and Susan H. Lund, his wife, as joint tenants, Grantors, of Holladay, County of Salt Lake, State of Utah, hereby CONVEY AND WARRANT to West Valley City, a municipal corporation of the State of Utah, at 3600 Constitution Boulevard, West Valley City, Utah 84119, Grantee, for the sum of TEN ($10.00), Dollars, and other good and valuable considerations, the following described parcel of land in Salt Lake County, State of Utah, to-wit:

A parcel of land in fee incident to the construction of signal upgrades at the intersection of 4100 South Street and 2700 West Street known as Project No. F-LC35(248), being part of an entire tract of property situate in the SE1/4SW1/4 of Section 33, T.1S., R.1W., S.L.B. & M., Salt Lake County, Utah. The boundaries of said parcel of land are described as follows:

Beginning at the southeast corner of said entire tract and a point in the existing northerly right of way line of 4100 South Street, said point is 53.00 feet N.00°00'44"E. and 64.97 feet S.89°52'32"W. from the South Quarter Corner of said Section 33, said point is also 53.00 feet perpendicularly distant northerly from the 4100 South Street Control Line opposite approximate engineer station 192+73.10; and running thence N.44°56'55"E. 21.19 feet to the existing easterly right of way line of 2700 West Street and the beginning of a 15.00-foot radius non-tangent curve to the right at a point 50.00 feet perpendicularly distant from the 2700 West Control Line opposite engineer station 706+67.86; thence southwesterly 23.53 feet along the arc of said curve (Note: Chord to said curve bears S.44°56'55"W. for a distance of 21.19 feet) to the point of beginning as shown on the official map of said project on file in the office of West Valley City. The above described parcel of land contains 64 square feet in area or 0.002 acre, more or less.

(Note: Rotate all bearings in the above description 00°14'22" clockwise to obtain highway bearings.)

Continued on Page 2

WITNESS, the hands of said Grantors, this 13TH day of JANUARY, A.D. 20 16.

Neil R. Lund

Susan H. Lund

STATE OF UTAH)
: ss
COUNTY OF SALT LAKE)

On the date first above written personally appeared before me, Neil R. Lund and Susan H. Lund, the signers of the within and foregoing instrument, who duly acknowledged to me that they executed the same.

NOTARY PUBLIC
STEVEN J. DALE
Commission No. 682382
Commission Expires
MARCH 24, 2019
STATE OF UTAH

Notary Public

CONCRETE SIDEWALK REQ'D
4100 SOUTH
191+70.01 LT 39.66 TO
191+93.90 LT 43.45 TO
192+03.97 LT 43.78
192+38.95 LT 44.92 TO
192+65.90 LT 45.80 TO
192+73.70 LT 48.52
194+08.42 LT 53.35 TO
194+20.57 LT 48.73
2700 WEST
705+04.85 LT 46.32 TO
705+14.15 LT 47.43 TO
705+26.80 LT 51.39
706+59.27 LT 54.16 TO
706+75.12 LT 48.50 TO
708+20.50 LT 48.50 TO
708+24.50 LT 49.00 TO
708+25.50 LT 49.00
708+75.50 LT 49.00 TO
709+23.72 LT 49.00

CONCRETE DRIVEWAY FLARED, 7 INCH THICK REQ'D
4100 SOUTH
192+21.84 LT 32.85
2700 WEST
708+50.50 LT 38.86

COLORED/STAMPED CONCRETE FLATWORK 4 INCH THICK REQ'D
4100 SOUTH
191+70.63 LT 33.69 TO
191+94.47 LT 37.46 TO
192+03.17 LT 37.75
192+40.15 LT 38.96 TO
192+61.47 LT 39.65 TO
192+76.42 LT 44.21
193+84.25 LT 84.94 TO
194+20.57 LT 48.73

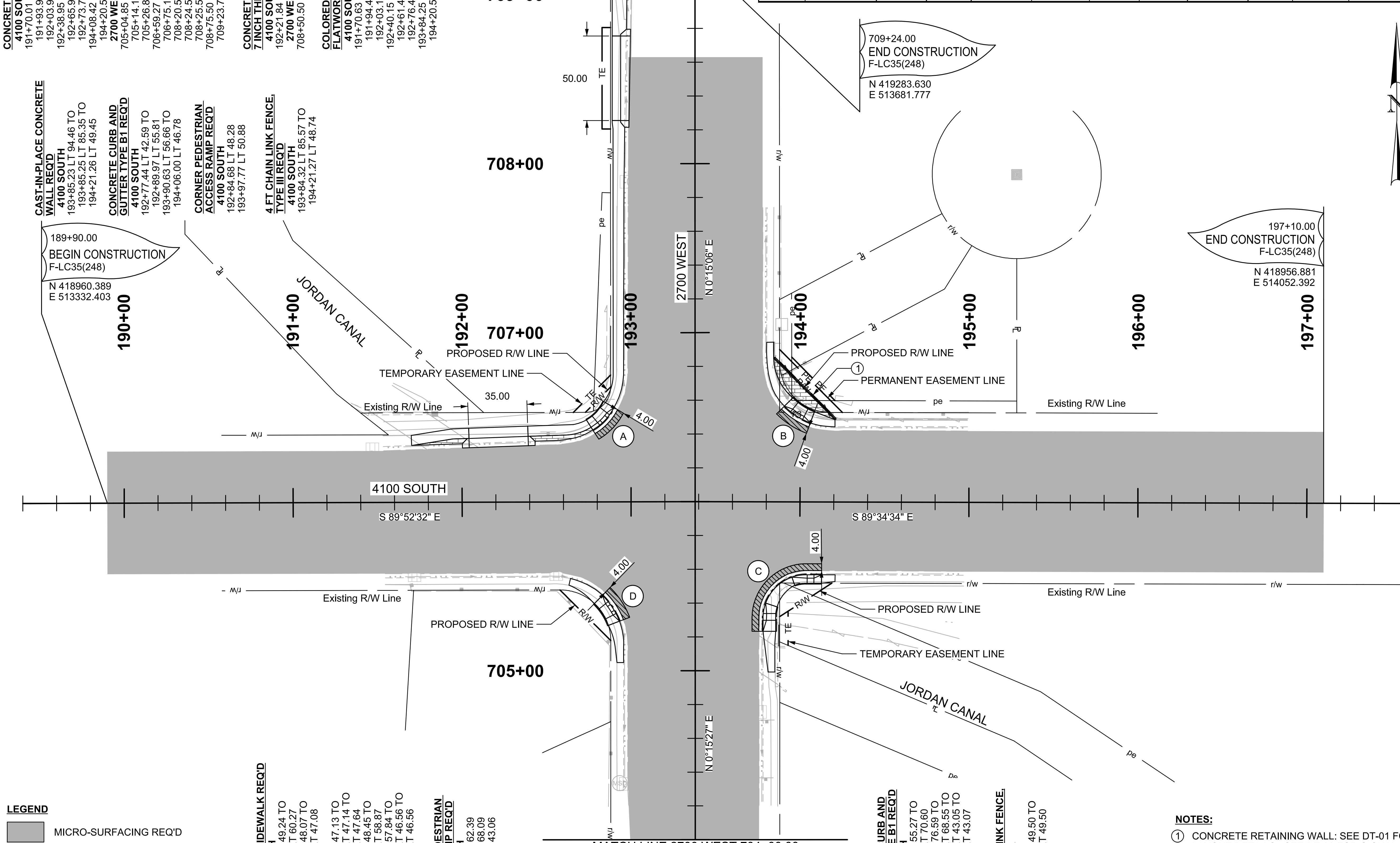
CAST-IN-PLACE CONCRETE WALL REQ'D
4100 SOUTH
193+85.23 LT 94.46 TO
193+85.25 LT 85.35 TO
194+21.26 LT 49.45

CONCRETE CURB AND GUTTER TYPE B1 REQ'D
4100 SOUTH
192+77.44 LT 42.59 TO
192+89.97 LT 55.81
193+90.63 LT 56.66 TO
194+06.00 LT 46.78

CORNER PEDESTRIAN ACCESS RAMP REQ'D
4100 SOUTH
192+84.68 LT 48.28
193+97.77 LT 50.88

4 FT CHAIN LINK FENCE, TYPE III REQ'D
4100 SOUTH
193+84.32 LT 85.57 TO
194+21.27 LT 48.74

TBC (TOP-BACK-CURB) DATA TABLE											
CURVE ID	CURVE RADIUS	CENTER OF CURVE				PC		PT		LENGTH (ft)	Δ(°)
		STA	OFF	NORTHING	EASTING	STA	OFF	STA	OFF		
A	31.50	192+61.84	69.95 LT	419029.752	513604.390	192+77.44	42.59 LT	192+89.97	55.81 LT	18.48	33°36'39.07" LT
B	42.00	194+20.49	86.20 LT	419045.223	513763.527	193+90.63	56.66 LT	194+06.00	46.78 LT	18.42	25°07'33.51" LT
C	25.50	194+03.81	68.55 RT	418890.594	513745.703	193+78.31	68.55 RT	194+03.85	43.05 RT	40.10	90°05'56.64" RT
D	42.50	192+53.20	85.66 RT	418874.155	513595.414	192+82.90	55.27 RT	192+92.94	70.60 RT	18.47	24°54'02.42" RT



LEGEND

MICRO-SURFACING REQ'D

HMA 1/2" REQ'D (7")

COLORED/STAMPED CONCRETE FLATWORK 4 INCH THICK REQ'D

CONCRETE SIDEWALK REQ'D
4100 SOUTH
192+63.11 RT 49.24 TO
192+78.01 RT 60.27
194+12.86 RT 48.07 TO
194+20.86 RT 47.08
2700 WEST
704+99.22 RT 47.13 TO
705+16.12 RT 47.14 TO
705+23.27 RT 47.64
705+37.71 RT 48.45 TO
705+50.60 RT 58.87
706+61.41 RT 57.84 TO
706+84.80 RT 46.56 TO
706+94.32 RT 46.56

CORNER PEDESTRIAN ACCESS RAMP REQ'D
4100 SOUTH
192+88.76 RT 62.39
193+78.31 RT 68.09
194+06.37 RT 43.06

CONCRETE CURB AND GUTTER TYPE B1 REQ'D
4100 SOUTH
192+82.90 RT 55.27 TO
192+92.94 RT 70.60
193+78.31 RT 76.59 TO
193+78.31 RT 68.55 TO
194+03.85 RT 43.05 TO
194+12.87 RT 43.07

6 FT CHAIN LINK FENCE, TYPE I REQ'D
2700 WEST
705+14.48 RT 49.50 TO
705+27.12 RT 49.50

NOTES:

1. CONCRETE RETAINING WALL: SEE DT-01 FOR LAYOUT DETAILS. SEE DT-02 FOR SIGNAL AND UTILITY INTERFACE DETAILS. SEE DT-03 FOR FENCE CONNECTION DETAILS. PLACE FENCE ON TOP OF CONCRETE RETAINING WALL FROM 4100 S 193+84.32 TO 194+21.27. TIE INTO EXISTING 4 FT CHAIN LINK FENCE ON TOP OF EXISTING WALL SYSTEM ON BOTH SIDES.

REVISIONS

NO.	DATE	APPROVED BY	REMARKS

UTAH DEPARTMENT OF TRANSPORTATION
LOCHNER

DRAWN BY: NMW
QC CHECKED BY: NB
DATE: 1/13/2016
APPROVED
PROFESSIONAL ENGINEER

PROJECT: 4100 S; 4000 W, 2700 W & 1300 W SIGNAL IMPS
PIN: 12225
PROJECT NUMBER: F-LC35(248)
ROADWAY

SHEET NO. RD-06

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1/13/2016